Network Working Group
Request for Comments: 1345
June 1992
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Character Mnemonics & Character Sets

Status of the Memo

This memo provides information for the Internet community. It does not specify an Internet standard. Distribution of this memo is unlimited.

Summary

This memo lists a selection of characters and their presence in some coded character sets. To facilitate the coded character set tabulations an unambiguous mnemonic for each character is used, and a format for tabulating the coded character sets is defined. The coded character sets are given names for easy reference. A family of coded character sets called the mnemonic character sets and conversion between these coded character set without information loss is defined.

The character set names are registered with the Internet Assigned Numbers Authority (IANA). Additional character sets not described in this memo should be registered with the IANA. This memo may be updated periodically, or additional specifications may be published, to reflect other coded character sets.

Please send any comments including comments about the accuracy of the tables to the author, Keld Simonsen <Keld.Simonsen@dkuug.dk>.

1. INTRODUCTION

With the growing internationalization of the Internet, support for many coded character sets is required. It is the intention of this memo to document precisely the mapping between all characters and their corresponding coded representations in various coded character sets, and give names to these coded character sets, so they can be referenced unambiguously in Internet standards.

This memo does not indicate anything about the validity of using these specifications in any Internet standard, so you should consult each individual Internet standard to see which coded character sets and names are allowed there.

Unambiguous character mnemonics are specified, which provide a practical way of identifying a character, without reference to a coded character set and its code in this coded character set. The mnemonics are written in a minimal set of characters, namely the invariant 83 graphical characters of ISO 646, which is a kind of greatest common subset to be found between the majority of coded

character sets, including ASCII, national variants of the ISO 646 7-bit character set and various EBCDICs. In addition, the numeric value of the coded representations of all these characters are the same in all coded character sets compatible with ISO standards. All of them except two, EXCLAMATION MARK and QUOTATION MARK, have the same coded representation in all variants of EBCDIC. This minimal set of characters is called the reference character set in this memo.

The mnemonics can be used in Internet standards for easy and unambiguous reference, and they can also serve as a fallback representation in various Internet specifications.

The coded character sets covered include all parts of ISO 8859, ISO 6937-2 and all ISO 646 conforming coded character sets in the ISO character set registry managed by ECMA according to ISO 2375. Almost all graphic coded character sets in the ECMA registry (1) are covered. The graphic coded character sets not included are registry numbers 31, 38, 39, 53, 59, 68, 71, 72, 129 and 137. In addition many vendor defined character sets are covered, including PC codepages (4), (7), (8), many EBCDIC character sets (4), (5), (6) and HP, DEC and Apple character sets (8), (9), (10), (13), (14). The East-Asian 16-bit character sets from the ECMA registry is also included in this memo.

2. CHARACTER MNEMONICS

2.1 General Syntax

The character mnemonics are taken from the ISO committee draft (CD) of the POSIX.2 standard (3). They are classified into two groups:

1. A group with two-character mnemonics
   - Primarily intended for alphabetic scripts like Latin, Greek, Cyrillic, Hebrew and Arabic, and special characters.
2. A group with variable-length mnemonics
   - primarily intended for non-alphabetic scripts like Japanese and Chinese, but also used for some accented letters and special characters.

In the two-character mnemonics, all invariant graphic character in the ISO 646 character codes except "&" are used, i.e. the following characters:

```
        ! "     %   ' ( ) * + , - . / 0 1 2 3 4 5 6 7 8 9 : ; < = > ?
          A B C D E F G H I J K L M N O P Q R S T U V W X Y Z       _
          a b c d e f g h i j k l m n o p q r s t u v w x y z
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The character "_" is not used as the first character.

In the variable-length mnemonics, the character "_" is not used as the first character. If it is used in a name, its presence is doubled.

The mnemonics can be used in several different ways for different purposes. One of these is description of coded character sets, which is detailed in section 3. Another is for extending a given coded character set to a mnemonic character set. This is described in section 4. The restrictions on the use of the characters "&" and "_" are due to demands of the compositional methods of these techniques.

2.2 ISO Official Long Descriptive Character Name

For all mnemonics, the character for which it stands is indicated in the following table by a long descriptive name. This name is identical to the ISO name of the character as given in reference (2). For a few characters that are not included there, descriptive names of the same kind are introduced in this memo. The source of each character is stated in the table after the name and should be consulted for a reliable identification of the character.

These long descriptive names consists only of the capital Latin letters of the invariant part of ISO 646, the digits, "-", and SPACE. Digits are only used in names of ideographic and Hangul characters and never as the first character.

2.3 The 2-character Mnemonics

The two-character mnemonics include various accented Latin letters, Greek, Cyrillic, Hebrew, Arabic, Hiragana and Katakana. Also a fair number of special characters are included. Almost all ISO or ISO registered 7- and 8-bit graphical coded character sets are covered with these two-character mnemonics.

The two characters are chosen so the graphical appearance in the reference set resembles as much as possible (within the possibilities available) the graphical appearance of the character. The basic character set of ISO 646 is used as the reference set, as mentioned above.

The characters in the reference character set are chosen to represent themselves.

For control characters from ISO 646 the two-character acronyms of ISO 2047 are used as mnemonics. For the other control characters of ISO 6429, two-character mnemonics have been selected based on the variable-length acronyms used in that standard.

Letters, including Greek, Cyrillic, Arabic and Hebrew, are represented with the base letter as the first letter, and the second letter represents an accent or relation to a non-Latin script. Non-Latin letters are transliterated to Latin letters, following transliteration standards as closely as possible. This is also done with the Latin letters such as ETH and THORN, and the Danish/Norwegian/Swedish letter A WITH RING ABOVE is transliterated into "aa".

After a letter, the second character signifies the following:

Exclamation mark	!	Grave
Apostrophe	'	Acute accent
Greater-Than sign	>	Circumflex accent
Question Mark	?	tilde
Hyphen-Minus	-	Macron
Left parenthesis	(	Breve
Full Stop	.	Dot Above
Colon	:	Diaeresis
Comma	,	Cedilla
Underline	_	Underline
Solidus	/	Stroke
Quotation mark	"	Double acute accent
Semicolon	;	Ogonek
Less-Than sign	<	Caron
Zero	0	Ring above
Two	2	Hook
Nine	9	Horn
Equals	=	Cyrillic
Asterisk	*	Greek
Percent sign	%	Greek/Cyrillic special
Plus	+	smalls: Arabic, capitals: Hebrew
Three	3	some Latin/Greek/Cyrillic letters
Four	4	Bopomofo
Five	5	Hiragana
Six	6	Katakana

In designing the mnemonics the following special characters were reserved: The ampersand is reserved as an intro character, indicating that the following string is in the mnemonic character set. The underline character is reserved for the variable-length mnemonics. This use does not eliminate usage as an accent or language identifier.

Special characters are encoded with some mnemonic value. These are not systematic thruout, but most mnemonics start with a related special character of the reference set.

2.4 The Variable-length Character Mnemonics

The Variable-length Character Mnemonics are primarily meant for the ideographic characters in larger Asian character sets, but are also used for accented characters with several accents and some special characters. To have the mnemonics as short as possible, which both saves storage and is easier to input, a quite short name is preferred. Considering the Chinese standard GB 2312-1980, the Japanese standards JIS X0208 and JIS X0212, and the Korean standard KS C 5601, they are all given by row and column numbers between 1 and 94. So two positions for row and column and a character set identifier of one character would be almost as short as possible. The following character set identifiers are defined:

```
          c   GB 2312-1980
          j   JIS X0208-1990
          J   JIS X0212-1990
          k   KS C 5601-1987
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This system for the representation of ideographic characters and Hangul characters is not truly mnemonic, but it provides short representations that are easy to connect to the corresponding character by means of the code table of an official character set standard. Alternative methods based on the graphic appearance or the pronunciation of the characters are thought to be unfeasible.

One prominent character in the reference character set is reserved for identifying variable-length mnemonics, namely the underline character "_". This character is intended as a delimiter both in the front and in the end of the mnemonic. An example of its use would be: (&=intro):

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          &_j3210_ &_j4436_&_j6530_
```

3. CHARACTER MNEMONIC TABLE

The following table contains the character mnemonic and the encoding and long descriptive name of ISO 2DIS 10646 (2). Although the ISO 10646 is only at DIS stage at this moment of writing and there is quite some debate about it, the long descriptive naming in the DIS is considered to be stable and the best official ISO reference to character names. The 2-octet encoded value of the ISO 2DIS 10646 is also used, but only as an identification of the character, and it should only be used for identification purposes as the coded representation may be changed in the final 10646 international standard. Some characters not in the ISO 2DIS 10646 are allocated values in the private use zone and given names and references to a character set where it is used.

The format of the table is:

1st field is the character mnemonic (mostly 2 characters).
2nd field is the ISO 2DIS 10646 code in hexadecimal.
3rd field is the long descriptive name of ISO 2DIS 10646.

SP	0020	SPACE
!	0021	EXCLAMATION MARK
"	0022	QUOTATION MARK
Nb	0023	NUMBER SIGN
DO	0024	DOLLAR SIGN
%	0025	PERCENT SIGN
&	0026	AMPERSAND
'	0027	APOSTROPHE
(	0028	LEFT PARENTHESIS
)	0029	RIGHT PARENTHESIS
*	002a	ASTERISK
+	002b	PLUS SIGN

,	002c	COMMA
-	002d	HYPHEN-MINUS
.	002e	FULL STOP
/	002f	SOLIDUS
0	0030	DIGIT ZERO
1	0031	DIGIT ONE
2	0032	DIGIT TWO
3	0033	DIGIT THREE
4	0034	DIGIT FOUR
5	0035	DIGIT FIVE
6	0036	DIGIT SIX
7	0037	DIGIT SEVEN
8	0038	DIGIT EIGHT
9	0039	DIGIT NINE
:	003a	COLON
;	003b	SEMICOLON
<	003c	LESS-THAN SIGN
=	003d	EQUALS SIGN
>	003e	GREATER-THAN SIGN
?	003f	QUESTION MARK
At	0040	COMMERCIAL AT
A	0041	LATIN CAPITAL LETTER A
B	0042	LATIN CAPITAL LETTER B
C	0043	LATIN CAPITAL LETTER C
D	0044	LATIN CAPITAL LETTER D
E	0045	LATIN CAPITAL LETTER E
F	0046	LATIN CAPITAL LETTER F
G	0047	LATIN CAPITAL LETTER G
H	0048	LATIN CAPITAL LETTER H
I	0049	LATIN CAPITAL LETTER I
J	004a	LATIN CAPITAL LETTER J
K	004b	LATIN CAPITAL LETTER K
L	004c	LATIN CAPITAL LETTER L
M	004d	LATIN CAPITAL LETTER M
N	004e	LATIN CAPITAL LETTER N
O	004f	LATIN CAPITAL LETTER O
P	0050	LATIN CAPITAL LETTER P
Q	0051	LATIN CAPITAL LETTER Q
R	0052	LATIN CAPITAL LETTER R
S	0053	LATIN CAPITAL LETTER S
T	0054	LATIN CAPITAL LETTER T
U	0055	LATIN CAPITAL LETTER U
V	0056	LATIN CAPITAL LETTER V
W	0057	LATIN CAPITAL LETTER W
X	0058	LATIN CAPITAL LETTER X
Y	0059	LATIN CAPITAL LETTER Y
Z	005a	LATIN CAPITAL LETTER Z
<(	005b	LEFT SQUARE BRACKET
//	005c	REVERSE SOLIDUS
)>	005d	RIGHT SQUARE BRACKET
'>	005e	CIRCUMFLEX ACCENT
_	005f	LOW LINE
'!	0060	GRAVE ACCENT

a	0061	LATIN SMALL LETTER A
b	0062	LATIN SMALL LETTER B
c	0063	LATIN SMALL LETTER C
d	0064	LATIN SMALL LETTER D
e	0065	LATIN SMALL LETTER E
f	0066	LATIN SMALL LETTER F
g	0067	LATIN SMALL LETTER G
h	0068	LATIN SMALL LETTER H
i	0069	LATIN SMALL LETTER I
j	006a	LATIN SMALL LETTER J
k	006b	LATIN SMALL LETTER K
l	006c	LATIN SMALL LETTER L
m	006d	LATIN SMALL LETTER M
n	006e	LATIN SMALL LETTER N
o	006f	LATIN SMALL LETTER O
p	0070	LATIN SMALL LETTER P
q	0071	LATIN SMALL LETTER Q
r	0072	LATIN SMALL LETTER R
s	0073	LATIN SMALL LETTER S
t	0074	LATIN SMALL LETTER T
u	0075	LATIN SMALL LETTER U
v	0076	LATIN SMALL LETTER V
w	0077	LATIN SMALL LETTER W
x	0078	LATIN SMALL LETTER X
y	0079	LATIN SMALL LETTER Y
z	007a	LATIN SMALL LETTER Z
(!	007b	LEFT CURLY BRACKET
!!	007c	VERTICAL LINE
!)	007d	RIGHT CURLY BRACKET
'?	007e	TILDE
NS	00a0	NO-BREAK SPACE
!I	00a1	INVERTED EXCLAMATION MARK
Ct	00a2	CENT SIGN
Pd	00a3	POUND SIGN
Cu	00a4	CURRENCY SIGN
Ye	00a5	YEN SIGN
BB	00a6	BROKEN BAR
SE	00a7	SECTION SIGN
':	00a8	DIAERESIS
Co	00a9	COPYRIGHT SIGN
-a	00aa	FEMININE ORDINAL INDICATOR
<<	00ab	LEFT-POINTING DOUBLE ANGLE QUOTATION MARK
NO	00ac	NOT SIGN
--	00ad	SOFT HYPHEN
Rg	00ae	REGISTERED SIGN
'm	00af	MACRON
DG	00b0	DEGREE SIGN
+-	00b1	PLUS-MINUS SIGN
2S	00b2	SUPERSCRIPT TWO
3S	00b3	SUPERSCRIPT THREE
''	00b4	ACUTE ACCENT
My	00b5	MICRO SIGN
PI	00b6	PILCROW SIGN

.M	00b7	MIDDLE DOT
’,	00b8	CEDILLA
1S	00b9	SUPERSCRIPT ONE
-o	00ba	MASCULINE ORDINAL INDICATOR
>>	00bb	RIGHT-POINTING DOUBLE ANGLE QUOTATION MARK
14	00bc	VULGAR FRACTION ONE QUARTER
12	00bd	VULGAR FRACTION ONE HALF
34	00be	VULGAR FRACTION THREE QUARTERS
?I	00bf	INVERTED QUESTION MARK
A!	00c0	LATIN CAPITAL LETTER A WITH GRAVE
A’	00c1	LATIN CAPITAL LETTER A WITH ACUTE
A>	00c2	LATIN CAPITAL LETTER A WITH CIRCUMFLEX
A?	00c3	LATIN CAPITAL LETTER A WITH TILDE
A:	00c4	LATIN CAPITAL LETTER A WITH DIAERESIS
AA	00c5	LATIN CAPITAL LETTER A WITH RING ABOVE
AE	00c6	LATIN CAPITAL LETTER AE
C,	00c7	LATIN CAPITAL LETTER C WITH CEDILLA
E!	00c8	LATIN CAPITAL LETTER E WITH GRAVE
E’	00c9	LATIN CAPITAL LETTER E WITH ACUTE
E>	00ca	LATIN CAPITAL LETTER E WITH CIRCUMFLEX
E:	00cb	LATIN CAPITAL LETTER E WITH DIAERESIS
I!	00cc	LATIN CAPITAL LETTER I WITH GRAVE
I’	00cd	LATIN CAPITAL LETTER I WITH ACUTE
I>	00ce	LATIN CAPITAL LETTER I WITH CIRCUMFLEX
I:	00cf	LATIN CAPITAL LETTER I WITH DIAERESIS
D-	00d0	LATIN CAPITAL LETTER ETH (Icelandic)
N?	00d1	LATIN CAPITAL LETTER N WITH TILDE
O!	00d2	LATIN CAPITAL LETTER O WITH GRAVE
O’	00d3	LATIN CAPITAL LETTER O WITH ACUTE
O>	00d4	LATIN CAPITAL LETTER O WITH CIRCUMFLEX
O?	00d5	LATIN CAPITAL LETTER O WITH TILDE
O:	00d6	LATIN CAPITAL LETTER O WITH DIAERESIS
*X	00d7	MULTIPLICATION SIGN
O/	00d8	LATIN CAPITAL LETTER O WITH STROKE
U!	00d9	LATIN CAPITAL LETTER U WITH GRAVE
U’	00da	LATIN CAPITAL LETTER U WITH ACUTE
U>	00db	LATIN CAPITAL LETTER U WITH CIRCUMFLEX
U:	00dc	LATIN CAPITAL LETTER U WITH DIAERESIS
Y’	00dd	LATIN CAPITAL LETTER Y WITH ACUTE
TH	00de	LATIN CAPITAL LETTER THORN (Icelandic)
ss	00df	LATIN SMALL LETTER SHARP S (German)
a!	00e0	LATIN SMALL LETTER A WITH GRAVE
a’	00e1	LATIN SMALL LETTER A WITH ACUTE
a>	00e2	LATIN SMALL LETTER A WITH CIRCUMFLEX
a?	00e3	LATIN SMALL LETTER A WITH TILDE
a:	00e4	LATIN SMALL LETTER A WITH DIAERESIS
aa	00e5	LATIN SMALL LETTER A WITH RING ABOVE
ae	00e6	LATIN SMALL LETTER AE
c,	00e7	LATIN SMALL LETTER C WITH CEDILLA
e!	00e8	LATIN SMALL LETTER E WITH GRAVE
e’	00e9	LATIN SMALL LETTER E WITH ACUTE
e>	00ea	LATIN SMALL LETTER E WITH CIRCUMFLEX
e:	00eb	LATIN SMALL LETTER E WITH DIAERESIS

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 i!     00ec    LATIN SMALL LETTER I WITH GRAVE
 i'     00ed    LATIN SMALL LETTER I WITH ACUTE
 i>     00ee    LATIN SMALL LETTER I WITH CIRCUMFLEX
 i:     00ef    LATIN SMALL LETTER I WITH DIAERESIS
 d-     00f0    LATIN SMALL LETTER ETH (Icelandic)
 n?     00f1    LATIN SMALL LETTER N WITH TILDE
 o!     00f2    LATIN SMALL LETTER O WITH GRAVE
 o'     00f3    LATIN SMALL LETTER O WITH ACUTE
 o>     00f4    LATIN SMALL LETTER O WITH CIRCUMFLEX
 o?     00f5    LATIN SMALL LETTER O WITH TILDE
 o:     00f6    LATIN SMALL LETTER O WITH DIAERESIS
 -:     00f7    DIVISION SIGN
 o/     00f8    LATIN SMALL LETTER O WITH STROKE
 u!     00f9    LATIN SMALL LETTER U WITH GRAVE
 u'     00fa    LATIN SMALL LETTER U WITH ACUTE
 u>     00fb    LATIN SMALL LETTER U WITH CIRCUMFLEX
 u:     00fc    LATIN SMALL LETTER U WITH DIAERESIS
 y'     00fd    LATIN SMALL LETTER Y WITH ACUTE
 th     00fe    LATIN SMALL LETTER THORN (Icelandic)
 y:     00ff    LATIN SMALL LETTER Y WITH DIAERESIS
 A-     0100    LATIN CAPITAL LETTER A WITH MACRON
 a-     0101    LATIN SMALL LETTER A WITH MACRON
 A(     0102    LATIN CAPITAL LETTER A WITH BREVE
 a(     0103    LATIN SMALL LETTER A WITH BREVE
 A;     0104    LATIN CAPITAL LETTER A WITH OGONEK
 a;     0105    LATIN SMALL LETTER A WITH OGONEK
 C'     0106    LATIN CAPITAL LETTER C WITH ACUTE
 c'     0107    LATIN SMALL LETTER C WITH ACUTE
 C>     0108    LATIN CAPITAL LETTER C WITH CIRCUMFLEX
 c>     0109    LATIN SMALL LETTER C WITH CIRCUMFLEX
 C.     010a    LATIN CAPITAL LETTER C WITH DOT ABOVE
 c.     010b    LATIN SMALL LETTER C WITH DOT ABOVE
 C<     010c    LATIN CAPITAL LETTER C WITH CARON
 c<     010d    LATIN SMALL LETTER C WITH CARON
 D<     010e    LATIN CAPITAL LETTER D WITH CARON
 d<     010f    LATIN SMALL LETTER D WITH CARON
 D/     0110    LATIN CAPITAL LETTER D WITH STROKE
 d/     0111    LATIN SMALL LETTER D WITH STROKE
 E-     0112    LATIN CAPITAL LETTER E WITH MACRON
 e-     0113    LATIN SMALL LETTER E WITH MACRON
 E(     0114    LATIN CAPITAL LETTER E WITH BREVE
 e(     0115    LATIN SMALL LETTER E WITH BREVE
 E.     0116    LATIN CAPITAL LETTER E WITH DOT ABOVE
 e.     0117    LATIN SMALL LETTER E WITH DOT ABOVE
 E;     0118    LATIN CAPITAL LETTER E WITH OGONEK
 e;     0119    LATIN SMALL LETTER E WITH OGONEK
 E<     011a    LATIN CAPITAL LETTER E WITH CARON
 e<     011b    LATIN SMALL LETTER E WITH CARON
 G>     011c    LATIN CAPITAL LETTER G WITH CIRCUMFLEX
 g>     011d    LATIN SMALL LETTER G WITH CIRCUMFLEX
 G(     011e    LATIN CAPITAL LETTER G WITH BREVE
 g(     011f    LATIN SMALL LETTER G WITH BREVE
 G.     0120    LATIN CAPITAL LETTER G WITH DOT ABOVE
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g.	0121	LATIN SMALL LETTER G WITH DOT ABOVE
G,	0122	LATIN CAPITAL LETTER G WITH CEDILLA
g,	0123	LATIN SMALL LETTER G WITH CEDILLA
H>	0124	LATIN CAPITAL LETTER H WITH CIRCUMFLEX
h>	0125	LATIN SMALL LETTER H WITH CIRCUMFLEX
H/	0126	LATIN CAPITAL LETTER H WITH STROKE
h/	0127	LATIN SMALL LETTER H WITH STROKE
I?	0128	LATIN CAPITAL LETTER I WITH TILDE
i?	0129	LATIN SMALL LETTER I WITH TILDE
I-	012a	LATIN CAPITAL LETTER I WITH MACRON
i-	012b	LATIN SMALL LETTER I WITH MACRON
I(	012c	LATIN CAPITAL LETTER I WITH BREVE
i(	012d	LATIN SMALL LETTER I WITH BREVE
I;	012e	LATIN CAPITAL LETTER I WITH OGONEK
i;	012f	LATIN SMALL LETTER I WITH OGONEK
I.	0130	LATIN CAPITAL LETTER I WITH DOT ABOVE
i.	0131	LATIN SMALL LETTER I DOTLESS
IJ	0132	LATIN CAPITAL LIGATURE IJ
ij	0133	LATIN SMALL LIGATURE IJ
J>	0134	LATIN CAPITAL LETTER J WITH CIRCUMFLEX
j>	0135	LATIN SMALL LETTER J WITH CIRCUMFLEX
K,	0136	LATIN CAPITAL LETTER K WITH CEDILLA
k,	0137	LATIN SMALL LETTER K WITH CEDILLA
kk	0138	LATIN SMALL LETTER KRA (Greenlandic)
L’	0139	LATIN CAPITAL LETTER L WITH ACUTE
l’	013a	LATIN SMALL LETTER L WITH ACUTE
L,	013b	LATIN CAPITAL LETTER L WITH CEDILLA
l,	013c	LATIN SMALL LETTER L WITH CEDILLA
L<	013d	LATIN CAPITAL LETTER L WITH CARON
l<	013e	LATIN SMALL LETTER L WITH CARON
L.	013f	LATIN CAPITAL LETTER L WITH MIDDLE DOT
l.	0140	LATIN SMALL LETTER L WITH MIDDLE DOT
L/	0141	LATIN CAPITAL LETTER L WITH STROKE
l/	0142	LATIN SMALL LETTER L WITH STROKE
N’	0143	LATIN CAPITAL LETTER N WITH ACUTE
n’	0144	LATIN SMALL LETTER N WITH ACUTE
N,	0145	LATIN CAPITAL LETTER N WITH CEDILLA
n,	0146	LATIN SMALL LETTER N WITH CEDILLA
N<	0147	LATIN CAPITAL LETTER N WITH CARON
n<	0148	LATIN SMALL LETTER N WITH CARON
’n	0149	LATIN SMALL LETTER N PRECEDED BY APOSTROPHE
NG	014a	LATIN CAPITAL LETTER ENG (Lappish)
ng	014b	LATIN SMALL LETTER ENG (Lappish)
O-	014c	LATIN CAPITAL LETTER O WITH MACRON
o-	014d	LATIN SMALL LETTER O WITH MACRON
O(	014e	LATIN CAPITAL LETTER O WITH BREVE
o(	014f	LATIN SMALL LETTER O WITH BREVE
O"	0150	LATIN CAPITAL LETTER O WITH DOUBLE ACUTE
o"	0151	LATIN SMALL LETTER O WITH DOUBLE ACUTE
OE	0152	LATIN CAPITAL LIGATURE OE
oe	0153	LATIN SMALL LIGATURE OE
R’	0154	LATIN CAPITAL LETTER R WITH ACUTE
r’	0155	LATIN SMALL LETTER R WITH ACUTE

R,	0156	LATIN CAPITAL LETTER R WITH CEDILLA
r,	0157	LATIN SMALL LETTER R WITH CEDILLA
R<	0158	LATIN CAPITAL LETTER R WITH CARON
r<	0159	LATIN SMALL LETTER R WITH CARON
S'	015a	LATIN CAPITAL LETTER S WITH ACUTE
s'	015b	LATIN SMALL LETTER S WITH ACUTE
S>	015c	LATIN CAPITAL LETTER S WITH CIRCUMFLEX
s>	015d	LATIN SMALL LETTER S WITH CIRCUMFLEX
S,	015e	LATIN CAPITAL LETTER S WITH CEDILLA
s,	015f	LATIN SMALL LETTER S WITH CEDILLA
S<	0160	LATIN CAPITAL LETTER S WITH CARON
s<	0161	LATIN SMALL LETTER S WITH CARON
T,	0162	LATIN CAPITAL LETTER T WITH CEDILLA
t,	0163	LATIN SMALL LETTER T WITH CEDILLA
T<	0164	LATIN CAPITAL LETTER T WITH CARON
t<	0165	LATIN SMALL LETTER T WITH CARON
T/	0166	LATIN CAPITAL LETTER T WITH STROKE
t/	0167	LATIN SMALL LETTER T WITH STROKE
U?	0168	LATIN CAPITAL LETTER U WITH TILDE
u?	0169	LATIN SMALL LETTER U WITH TILDE
U-	016a	LATIN CAPITAL LETTER U WITH MACRON
u-	016b	LATIN SMALL LETTER U WITH MACRON
U(	016c	LATIN CAPITAL LETTER U WITH BREVE
u(	016d	LATIN SMALL LETTER U WITH BREVE
U0	016e	LATIN CAPITAL LETTER U WITH RING ABOVE
u0	016f	LATIN SMALL LETTER U WITH RING ABOVE
U"	0170	LATIN CAPITAL LETTER U WITH DOUBLE ACUTE
u"	0171	LATIN SMALL LETTER U WITH DOUBLE ACUTE
U;	0172	LATIN CAPITAL LETTER U WITH OGONEK
u;	0173	LATIN SMALL LETTER U WITH OGONEK
W>	0174	LATIN CAPITAL LETTER W WITH CIRCUMFLEX
w>	0175	LATIN SMALL LETTER W WITH CIRCUMFLEX
Y>	0176	LATIN CAPITAL LETTER Y WITH CIRCUMFLEX
y>	0177	LATIN SMALL LETTER Y WITH CIRCUMFLEX
Y:	0178	LATIN CAPITAL LETTER Y WITH DIAERESIS
Z'	0179	LATIN CAPITAL LETTER Z WITH ACUTE
z'	017a	LATIN SMALL LETTER Z WITH ACUTE
Z.	017b	LATIN CAPITAL LETTER Z WITH DOT ABOVE
z.	017c	LATIN SMALL LETTER Z WITH DOT ABOVE
Z<	017d	LATIN CAPITAL LETTER Z WITH CARON
z<	017e	LATIN SMALL LETTER Z WITH CARON
O9	01a0	LATIN CAPITAL LETTER O WITH HORN
o9	01a1	LATIN SMALL LETTER O WITH HORN
OI	01a2	LATIN CAPITAL LETTER OI
oi	01a3	LATIN SMALL LETTER OI
yr	01a6	LATIN LETTER YR
U9	01af	LATIN CAPITAL LETTER U WITH HORN
u9	01b0	LATIN SMALL LETTER U WITH HORN
Z/	01b5	LATIN CAPITAL LETTER Z WITH STROKE
z/	01b6	LATIN SMALL LETTER Z WITH STROKE
ED	01b7	LATIN CAPITAL LETTER EZH
A<	01cd	LATIN CAPITAL LETTER A WITH CARON
a<	01ce	LATIN SMALL LETTER A WITH CARON

I<	01cf	LATIN CAPITAL LETTER I WITH CARON
i<	01d0	LATIN SMALL LETTER I WITH CARON
O<	01d1	LATIN CAPITAL LETTER O WITH CARON
o<	01d2	LATIN SMALL LETTER O WITH CARON
U<	01d3	LATIN CAPITAL LETTER U WITH CARON
u<	01d4	LATIN SMALL LETTER U WITH CARON
U:-	01d5	LATIN CAPITAL LETTER U WITH DIAERESIS AND MACRON
u:-	01d6	LATIN SMALL LETTER U WITH DIAERESIS AND MACRON
U:’	01d7	LATIN CAPITAL LETTER U WITH DIAERESIS AND ACUTE
u:’	01d8	LATIN SMALL LETTER U WITH DIAERESIS AND ACUTE
U:<	01d9	LATIN CAPITAL LETTER U WITH DIAERESIS AND CARON
u:<	01da	LATIN SMALL LETTER U WITH DIAERESIS AND CARON
U:!	01db	LATIN CAPITAL LETTER U WITH DIAERESIS AND GRAVE
u:!	01dc	LATIN SMALL LETTER U WITH DIAERESIS AND GRAVE
A1	01de	LATIN CAPITAL LETTER A WITH DIAERESIS AND MACRON
a1	01df	LATIN SMALL LETTER A WITH DIAERESIS AND MACRON
A7	01e0	LATIN CAPITAL LETTER A WITH DOT ABOVE AND MACRON
a7	01e1	LATIN SMALL LETTER A WITH DOT ABOVE AND MACRON
A3	01e2	LATIN CAPITAL LETTER AE WITH MACRON
a3	01e3	LATIN SMALL LETTER AE WITH MACRON
G/	01e4	LATIN CAPITAL LETTER G WITH STROKE
g/	01e5	LATIN SMALL LETTER G WITH STROKE
G<	01e6	LATIN CAPITAL LETTER G WITH CARON
g<	01e7	LATIN SMALL LETTER G WITH CARON
K<	01e8	LATIN CAPITAL LETTER K WITH CARON
k<	01e9	LATIN SMALL LETTER K WITH CARON
O;	01ea	LATIN CAPITAL LETTER O WITH OGONEK
o;	01eb	LATIN SMALL LETTER O WITH OGONEK
O1	01ec	LATIN CAPITAL LETTER O WITH OGONEK AND MACRON
o1	01ed	LATIN SMALL LETTER O WITH OGONEK AND MACRON
EZ	01ee	LATIN CAPITAL LETTER EZH WITH CARON
ez	01ef	LATIN SMALL LETTER EZH WITH CARON
j<	01f0	LATIN SMALL LETTER J WITH CARON
G’	01f4	LATIN CAPITAL LETTER G WITH ACUTE
g’	01f5	LATIN SMALL LETTER G WITH ACUTE
AA’	01fa	LATIN CAPITAL LETTER A WITH RING ABOVE AND ACUTE
aa’	01fb	LATIN SMALL LETTER A WITH RING ABOVE AND ACUTE
AE’	01fc	LATIN CAPITAL LETTER AE WITH ACUTE
ae’	01fd	LATIN SMALL LETTER AE WITH ACUTE
O/’	01fe	LATIN CAPITAL LETTER O WITH STROKE AND ACUTE
o/’	01ff	LATIN SMALL LETTER O WITH STROKE AND ACUTE
;S	02bf	MODIFIER LETTER LEFT HALF RING
’<	02c7	CARON
’(	02d8	BREVE
’.	02d9	DOT ABOVE
’0	02da	RING ABOVE
’;	02db	OGONEK
’"	02dd	DOUBLE ACUTE ACCENT
A%	0386	GREEK CAPITAL LETTER ALPHA WITH ACUTE
E%	0388	GREEK CAPITAL LETTER EPSILON WITH ACUTE
Y%	0389	GREEK CAPITAL LETTER ETA WITH ACUTE
I%	038a	GREEK CAPITAL LETTER IOTA WITH ACUTE
O%	038c	GREEK CAPITAL LETTER OMICRON WITH ACUTE

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 U%     038e    GREEK CAPITAL LETTER UPSILON WITH ACUTE
 W%     038f    GREEK CAPITAL LETTER OMEGA WITH ACUTE
 i3     0390    GREEK SMALL LETTER IOTA WITH ACUTE AND DIAERESIS
 A*     0391    GREEK CAPITAL LETTER ALPHA
 B*     0392    GREEK CAPITAL LETTER BETA
 G*     0393    GREEK CAPITAL LETTER GAMMA
 D*     0394    GREEK CAPITAL LETTER DELTA
 E*     0395    GREEK CAPITAL LETTER EPSILON
 Z*     0396    GREEK CAPITAL LETTER ZETA
 Y*     0397    GREEK CAPITAL LETTER ETA
 H*     0398    GREEK CAPITAL LETTER THETA
 I*     0399    GREEK CAPITAL LETTER IOTA
 K*     039a    GREEK CAPITAL LETTER KAPPA
 L*     039b    GREEK CAPITAL LETTER LAMDA
 M*     039c    GREEK CAPITAL LETTER MU
 N*     039d    GREEK CAPITAL LETTER NU
 C*     039e    GREEK CAPITAL LETTER XI
 O*     039f    GREEK CAPITAL LETTER OMICRON
 P*     03a0    GREEK CAPITAL LETTER PI
 R*     03a1    GREEK CAPITAL LETTER RHO
 S*     03a3    GREEK CAPITAL LETTER SIGMA
 T*     03a4    GREEK CAPITAL LETTER TAU
 U*     03a5    GREEK CAPITAL LETTER UPSILON
 F*     03a6    GREEK CAPITAL LETTER PHI
 X*     03a7    GREEK CAPITAL LETTER CHI
 Q*     03a8    GREEK CAPITAL LETTER PSI
 W*     03a9    GREEK CAPITAL LETTER OMEGA
 J*     03aa    GREEK CAPITAL LETTER IOTA WITH DIAERESIS
 V*     03ab    GREEK CAPITAL LETTER UPSILON WITH DIAERESIS
 a%     03ac    GREEK SMALL LETTER ALPHA WITH ACUTE
 e%     03ad    GREEK SMALL LETTER EPSILON WITH ACUTE
 y%     03ae    GREEK SMALL LETTER ETA WITH ACUTE
 i%     03af    GREEK SMALL LETTER IOTA WITH ACUTE
 u3     03b0    GREEK SMALL LETTER UPSILON WITH ACUTE AND DIAERESIS
 a*     03b1    GREEK SMALL LETTER ALPHA
 b*     03b2    GREEK SMALL LETTER BETA
 g*     03b3    GREEK SMALL LETTER GAMMA
 d*     03b4    GREEK SMALL LETTER DELTA
 e*     03b5    GREEK SMALL LETTER EPSILON
 z*     03b6    GREEK SMALL LETTER ZETA
 y*     03b7    GREEK SMALL LETTER ETA
 h*     03b8    GREEK SMALL LETTER THETA
 i*     03b9    GREEK SMALL LETTER IOTA
 k*     03ba    GREEK SMALL LETTER KAPPA
 l*     03bb    GREEK SMALL LETTER LAMDA
 m*     03bc    GREEK SMALL LETTER MU
 n*     03bd    GREEK SMALL LETTER NU
 c*     03be    GREEK SMALL LETTER XI
 o*     03bf    GREEK SMALL LETTER OMICRON
 p*     03c0    GREEK SMALL LETTER PI
 r*     03c1    GREEK SMALL LETTER RHO
 *s     03c2    GREEK SMALL LETTER FINAL SIGMA
 s*     03c3    GREEK SMALL LETTER SIGMA
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 t*     03c4    GREEK SMALL LETTER TAU
 u*     03c5    GREEK SMALL LETTER UPSILON
 f*     03c6    GREEK SMALL LETTER PHI
 x*     03c7    GREEK SMALL LETTER CHI
 q*     03c8    GREEK SMALL LETTER PSI
 w*     03c9    GREEK SMALL LETTER OMEGA
 j*     03ca    GREEK SMALL LETTER IOTA WITH DIAERESIS
 v*     03cb    GREEK SMALL LETTER UPSILON WITH DIAERESIS
 o%     03cc    GREEK SMALL LETTER OMICRON WITH ACUTE
 u%     03cd    GREEK SMALL LETTER UPSILON WITH ACUTE
 w%     03ce    GREEK SMALL LETTER OMEGA WITH ACUTE
 'G     03d8    GREEK NUMERAL SIGN
 ,G     03d9    GREEK LOWER NUMERAL SIGN
 T3     03da    GREEK CAPITAL LETTER STIGMA
 t3     03db    GREEK SMALL LETTER STIGMA
 M3     03dc    GREEK CAPITAL LETTER DIGAMMA
 m3     03dd    GREEK SMALL LETTER DIGAMMA
 K3     03de    GREEK CAPITAL LETTER KOPPA
 k3     03df    GREEK SMALL LETTER KOPPA
 P3     03e0    GREEK CAPITAL LETTER SAMPI
 p3     03e1    GREEK SMALL LETTER SAMPI
 '%     03f4    ACUTE ACCENT AND DIAERESIS (Tonos and Dialytika)
 j3     03f5    GREEK IOTA BELOW
 IO     0401    CYRILLIC CAPITAL LETTER IO
 D%     0402    CYRILLIC CAPITAL LETTER DJE (Serbocroatian)
 G%     0403    CYRILLIC CAPITAL LETTER GJE (Macedonian)
 IE     0404    CYRILLIC CAPITAL LETTER UKRAINIAN IE
 DS     0405    CYRILLIC CAPITAL LETTER DZE (Macedonian)
 II     0406    CYRILLIC CAPITAL LETTER BYELORUSSIAN-UKRAINIAN I
 YI     0407    CYRILLIC CAPITAL LETTER YI (Ukrainian)
 J%     0408    CYRILLIC CAPITAL LETTER JE
 LJ     0409    CYRILLIC CAPITAL LETTER LJE
 NJ     040a    CYRILLIC CAPITAL LETTER NJE
 Ts     040b    CYRILLIC CAPITAL LETTER TSHE (Serbocroatian)
 KJ     040c    CYRILLIC CAPITAL LETTER KJE (Macedonian)
 V%     040e    CYRILLIC CAPITAL LETTER SHORT U (Byelorussian)
 DZ     040f    CYRILLIC CAPITAL LETTER DZHE
 A=     0410    CYRILLIC CAPITAL LETTER A
 B=     0411    CYRILLIC CAPITAL LETTER BE
 V=     0412    CYRILLIC CAPITAL LETTER VE
 G=     0413    CYRILLIC CAPITAL LETTER GHE
 D=     0414    CYRILLIC CAPITAL LETTER DE
 E=     0415    CYRILLIC CAPITAL LETTER IE
 Z%     0416    CYRILLIC CAPITAL LETTER ZHE
 Z=     0417    CYRILLIC CAPITAL LETTER ZE
 I=     0418    CYRILLIC CAPITAL LETTER I
 J=     0419    CYRILLIC CAPITAL LETTER SHORT I
 K=     041a    CYRILLIC CAPITAL LETTER KA
 L=     041b    CYRILLIC CAPITAL LETTER EL
 M=     041c    CYRILLIC CAPITAL LETTER EM
 N=     041d    CYRILLIC CAPITAL LETTER EN
 O=     041e    CYRILLIC CAPITAL LETTER O
 P=     041f    CYRILLIC CAPITAL LETTER PE
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R=	0420	CYRILLIC CAPITAL LETTER ER
S=	0421	CYRILLIC CAPITAL LETTER ES
T=	0422	CYRILLIC CAPITAL LETTER TE
U=	0423	CYRILLIC CAPITAL LETTER U
F=	0424	CYRILLIC CAPITAL LETTER EF
H=	0425	CYRILLIC CAPITAL LETTER HA
C=	0426	CYRILLIC CAPITAL LETTER TSE
C%	0427	CYRILLIC CAPITAL LETTER CHE
S%	0428	CYRILLIC CAPITAL LETTER SHA
Sc	0429	CYRILLIC CAPITAL LETTER SHCHA
="	042a	CYRILLIC CAPITAL LETTER HARD SIGN
Y=	042b	CYRILLIC CAPITAL LETTER YERU
%"	042c	CYRILLIC CAPITAL LETTER SOFT SIGN
JE	042d	CYRILLIC CAPITAL LETTER E
JU	042e	CYRILLIC CAPITAL LETTER YU
JA	042f	CYRILLIC CAPITAL LETTER YA
a=	0430	CYRILLIC SMALL LETTER A
b=	0431	CYRILLIC SMALL LETTER BE
v=	0432	CYRILLIC SMALL LETTER VE
g=	0433	CYRILLIC SMALL LETTER GHE
d=	0434	CYRILLIC SMALL LETTER DE
e=	0435	CYRILLIC SMALL LETTER IE
z%	0436	CYRILLIC SMALL LETTER ZHE
z=	0437	CYRILLIC SMALL LETTER ZE
i=	0438	CYRILLIC SMALL LETTER I
j=	0439	CYRILLIC SMALL LETTER SHORT I
k=	043a	CYRILLIC SMALL LETTER KA
l=	043b	CYRILLIC SMALL LETTER EL
m=	043c	CYRILLIC SMALL LETTER EM
n=	043d	CYRILLIC SMALL LETTER EN
o=	043e	CYRILLIC SMALL LETTER O
p=	043f	CYRILLIC SMALL LETTER PE
r=	0440	CYRILLIC SMALL LETTER ER
s=	0441	CYRILLIC SMALL LETTER ES
t=	0442	CYRILLIC SMALL LETTER TE
u=	0443	CYRILLIC SMALL LETTER U
f=	0444	CYRILLIC SMALL LETTER EF
h=	0445	CYRILLIC SMALL LETTER HA
c=	0446	CYRILLIC SMALL LETTER TSE
c%	0447	CYRILLIC SMALL LETTER CHE
s%	0448	CYRILLIC SMALL LETTER SHA
sc	0449	CYRILLIC SMALL LETTER SHCHA
='	044a	CYRILLIC SMALL LETTER HARD SIGN
y=	044b	CYRILLIC SMALL LETTER YERU
%'	044c	CYRILLIC SMALL LETTER SOFT SIGN
je	044d	CYRILLIC SMALL LETTER E
ju	044e	CYRILLIC SMALL LETTER YU
ja	044f	CYRILLIC SMALL LETTER YA
io	0451	CYRILLIC SMALL LETTER IO
d%	0452	CYRILLIC SMALL LETTER DJE (Serbocroatian)
g%	0453	CYRILLIC SMALL LETTER GJE (Macedonian)
ie	0454	CYRILLIC SMALL LETTER UKRAINIAN IE
ds	0455	CYRILLIC SMALL LETTER DZE (Macedonian)

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 ii     0456    CYRILLIC SMALL LETTER BYELORUSSIAN-UKRAINIAN I
 yi     0457    CYRILLIC SMALL LETTER YI (Ukrainian)
 j%     0458    CYRILLIC SMALL LETTER JE
 lj     0459    CYRILLIC SMALL LETTER LJE
 nj     045a    CYRILLIC SMALL LETTER NJE
 ts     045b    CYRILLIC SMALL LETTER TSHE (Serbocroatian)
 kj     045c    CYRILLIC SMALL LETTER KJE (Macedonian)
 v%     045e    CYRILLIC SMALL LETTER SHORT U (Byelorussian)
 dz     045f    CYRILLIC SMALL LETTER DZHE
 Y3     0462    CYRILLIC CAPITAL LETTER YAT
 y3     0463    CYRILLIC SMALL LETTER YAT
 O3     046a    CYRILLIC CAPITAL LETTER BIG YUS
 o3     046b    CYRILLIC SMALL LETTER BIG YUS
 F3     0472    CYRILLIC CAPITAL LETTER FITA
 f3     0473    CYRILLIC SMALL LETTER FITA
 V3     0474    CYRILLIC CAPITAL LETTER IZHITSA
 v3     0475    CYRILLIC SMALL LETTER IZHITSA
 C3     0480    CYRILLIC CAPITAL LETTER KOPPA
 c3     0481    CYRILLIC SMALL LETTER KOPPA
 G3     0490    CYRILLIC CAPITAL LETTER GHE WITH UPTURN
 g3     0491    CYRILLIC SMALL LETTER GHE WITH UPTURN
 A+     05d0    HEBREW LETTER ALEF
 B+     05d1    HEBREW LETTER BET
 G+     05d2    HEBREW LETTER GIMEL
 D+     05d3    HEBREW LETTER DALET
 H+     05d4    HEBREW LETTER HE
 W+     05d5    HEBREW LETTER VAV
 Z+     05d6    HEBREW LETTER ZAYIN
 X+     05d7    HEBREW LETTER HET
 Tj     05d8    HEBREW LETTER TET
 J+     05d9    HEBREW LETTER YOD
 K%     05da    HEBREW LETTER FINAL KAF
 K+     05db    HEBREW LETTER KAF
 L+     05dc    HEBREW LETTER LAMED
 M%     05dd    HEBREW LETTER FINAL MEM
 M+     05de    HEBREW LETTER MEM
 N%     05df    HEBREW LETTER FINAL NUN
 N+     05e0    HEBREW LETTER NUN
 S+     05e1    HEBREW LETTER SAMEKH
 E+     05e2    HEBREW LETTER AYIN
 P%     05e3    HEBREW LETTER FINAL PE
 P+     05e4    HEBREW LETTER PE
 Zj     05e5    HEBREW LETTER FINAL TSADI
 ZJ     05e6    HEBREW LETTER TSADI
 Q+     05e7    HEBREW LETTER QOF
 R+     05e8    HEBREW LETTER RESH
 Sh     05e9    HEBREW LETTER SHIN
 T+     05ea    HEBREW LETTER TAV
 ,+     060c    ARABIC COMMA
 ;+     061b    ARABIC SEMICOLON
 ?+     061f    ARABIC QUESTION MARK
 H'     0621    ARABIC LETTER HAMZA
 aM     0622    ARABIC LETTER ALEF WITH MADDA ABOVE
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aH	0623	ARABIC LETTER ALEF WITH HAMZA ABOVE
wH	0624	ARABIC LETTER WAW WITH HAMZA ABOVE
ah	0625	ARABIC LETTER ALEF WITH HAMZA BELOW
yH	0626	ARABIC LETTER YEH WITH HAMZA ABOVE
a+	0627	ARABIC LETTER ALEF
b+	0628	ARABIC LETTER BEH
tm	0629	ARABIC LETTER TEH MARBUTA
t+	062a	ARABIC LETTER TEH
tk	062b	ARABIC LETTER THEH
g+	062c	ARABIC LETTER JEEM
hk	062d	ARABIC LETTER HAH
x+	062e	ARABIC LETTER KHAH
d+	062f	ARABIC LETTER DAL
dk	0630	ARABIC LETTER THAL
r+	0631	ARABIC LETTER REH
z+	0632	ARABIC LETTER ZAIN
s+	0633	ARABIC LETTER SEEN
sn	0634	ARABIC LETTER SHEEN
c+	0635	ARABIC LETTER SAD
dd	0636	ARABIC LETTER DAD
tj	0637	ARABIC LETTER TAH
zH	0638	ARABIC LETTER ZAH
e+	0639	ARABIC LETTER AIN
i+	063a	ARABIC LETTER GHAIN
++	0640	ARABIC TATWEEL
f+	0641	ARABIC LETTER FEH
q+	0642	ARABIC LETTER QAF
k+	0643	ARABIC LETTER KAF
l+	0644	ARABIC LETTER LAM
m+	0645	ARABIC LETTER MEEM
n+	0646	ARABIC LETTER NOON
h+	0647	ARABIC LETTER HEH
w+	0648	ARABIC LETTER WAW
j+	0649	ARABIC LETTER ALEF MAKSURA
y+	064a	ARABIC LETTER YEH
:+	064b	ARABIC FATHATAN
"+	064c	ARABIC DAMMATAN
=+	064d	ARABIC KASRATAN
/+	064e	ARABIC FATHA
’+	064f	ARABIC DAMMA
1+	0650	ARABIC KASRA
3+	0651	ARABIC SHADDA
0+	0652	ARABIC SUKUN
aS	0670	SUPERSCRIPT ARABIC LETTER ALEF
p+	067e	ARABIC LETTER PEH
v+	06a4	ARABIC LETTER VEH
gf	06af	ARABIC LETTER GAF
0a	06f0	EASTERN ARABIC-INDIC DIGIT ZERO
1a	06f1	EASTERN ARABIC-INDIC DIGIT ONE
2a	06f2	EASTERN ARABIC-INDIC DIGIT TWO
3a	06f3	EASTERN ARABIC-INDIC DIGIT THREE
4a	06f4	EASTERN ARABIC-INDIC DIGIT FOUR
5a	06f5	EASTERN ARABIC-INDIC DIGIT FIVE

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 6a     06f6    EASTERN ARABIC-INDIC DIGIT SIX
 7a     06f7    EASTERN ARABIC-INDIC DIGIT SEVEN
 8a     06f8    EASTERN ARABIC-INDIC DIGIT EIGHT
 9a     06f9    EASTERN ARABIC-INDIC DIGIT NINE
 A-0    1e00    LATIN CAPITAL LETTER A WITH RING BELOW
 a-0    1e01    LATIN SMALL LETTER A WITH RING BELOW
 B.     1e02    LATIN CAPITAL LETTER B WITH DOT ABOVE
 b.     1e03    LATIN SMALL LETTER B WITH DOT ABOVE
 B-.    1e04    LATIN CAPITAL LETTER B WITH DOT BELOW
 b-.    1e05    LATIN SMALL LETTER B WITH DOT BELOW
 B_     1e06    LATIN CAPITAL LETTER B WITH LINE BELOW
 b_     1e07    LATIN SMALL LETTER B WITH LINE BELOW
 C,'    1e08    LATIN CAPITAL LETTER C WITH CEDILLA AND ACUTE
 c,'    1e09    LATIN SMALL LETTER C WITH CEDILLA AND ACUTE
 D.     1e0a    LATIN CAPITAL LETTER D WITH DOT ABOVE
 d.     1e0b    LATIN SMALL LETTER D WITH DOT ABOVE
 D-.    1e0c    LATIN CAPITAL LETTER D WITH DOT BELOW
 d-.    1e0d    LATIN SMALL LETTER D WITH DOT BELOW
 D_     1e0e    LATIN CAPITAL LETTER D WITH LINE BELOW
 d_     1e0f    LATIN SMALL LETTER D WITH LINE BELOW
 D,     1e10    LATIN CAPITAL LETTER D WITH CEDILLA
 d,     1e11    LATIN SMALL LETTER D WITH CEDILLA
 D->    1e12    LATIN CAPITAL LETTER D WITH CIRCUMFLEX BELOW
 d->    1e13    LATIN SMALL LETTER D WITH CIRCUMFLEX BELOW
 E-!    1e14    LATIN CAPITAL LETTER E WITH MACRON AND GRAVE
 e-!    1e15    LATIN SMALL LETTER E WITH MACRON AND GRAVE
 E-'    1e16    LATIN CAPITAL LETTER E WITH MACRON AND ACUTE
 e-'    1e17    LATIN SMALL LETTER E WITH MACRON AND ACUTE
 E->    1e18    LATIN CAPITAL LETTER E WITH CIRCUMFLEX BELOW
 e->    1e19    LATIN SMALL LETTER E WITH CIRCUMFLEX BELOW
 E-?    1e1a    LATIN CAPITAL LETTER E WITH TILDE BELOW
 e-?    1e1b    LATIN SMALL LETTER E WITH TILDE BELOW
 E,(    1e1c    LATIN CAPITAL LETTER E WITH CEDILLA AND BREVE
 e,(    1e1d    LATIN SMALL LETTER E WITH CEDILLA AND BREVE
 F.     1e1e    LATIN CAPITAL LETTER F WITH DOT ABOVE
 f.     1e1f    LATIN SMALL LETTER F WITH DOT ABOVE
 G-     1e20    LATIN CAPITAL LETTER G WITH MACRON
 g-     1e21    LATIN SMALL LETTER G WITH MACRON
 H.     1e22    LATIN CAPITAL LETTER H WITH DOT ABOVE
 h.     1e23    LATIN SMALL LETTER H WITH DOT ABOVE
 H-.    1e24    LATIN CAPITAL LETTER H WITH DOT BELOW
 h-.    1e25    LATIN SMALL LETTER H WITH DOT BELOW
 H:     1e26    LATIN CAPITAL LETTER H WITH DIAERESIS
 h:     1e27    LATIN SMALL LETTER H WITH DIAERESIS
 H,     1e28    LATIN CAPITAL LETTER H WITH CEDILLA
 h,     1e29    LATIN SMALL LETTER H WITH CEDILLA
 H-(    1e2a    LATIN CAPITAL LETTER H WITH BREVE BELOW
 h-(    1e2b    LATIN SMALL LETTER H WITH BREVE BELOW
 I-?    1e2c    LATIN CAPITAL LETTER I WITH TILDE BELOW
 i-?    1e2d    LATIN SMALL LETTER I WITH TILDE BELOW
 I:'    1e2e    LATIN CAPITAL LETTER I WITH DIAERESIS AND ACUTE
 i:'    1e2f    LATIN SMALL LETTER I WITH DIAERESIS AND ACUTE
 K'     1e30    LATIN CAPITAL LETTER K WITH ACUTE
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 k’      1e31    LATIN SMALL LETTER K WITH ACUTE
 K-.     1e32    LATIN CAPITAL LETTER K WITH DOT BELOW
 k-.     1e33    LATIN SMALL LETTER K WITH DOT BELOW
 K_      1e34    LATIN CAPITAL LETTER K WITH LINE BELOW
 k_      1e35    LATIN SMALL LETTER K WITH LINE BELOW
 L-.     1e36    LATIN CAPITAL LETTER L WITH DOT BELOW
 l-.     1e37    LATIN SMALL LETTER L WITH DOT BELOW
 L--.    1e38    LATIN CAPITAL LETTER L WITH DOT BELOW AND MACRON
 l--.    1e39    LATIN SMALL LETTER L WITH DOT BELOW AND MACRON
 L_      1e3a    LATIN CAPITAL LETTER L WITH LINE BELOW
 l_      1e3b    LATIN SMALL LETTER L WITH LINE BELOW
 L->     1e3c    LATIN CAPITAL LETTER L WITH CIRCUMFLEX BELOW
 l->     1e3d    LATIN SMALL LETTER L WITH CIRCUMFLEX BELOW
 M’      1e3e    LATIN CAPITAL LETTER M WITH ACUTE
 m’      1e3f    LATIN SMALL LETTER M WITH ACUTE
 M.      1e40    LATIN CAPITAL LETTER M WITH DOT ABOVE
 m.      1e41    LATIN SMALL LETTER M WITH DOT ABOVE
 M-.     1e42    LATIN CAPITAL LETTER M WITH DOT BELOW
 m-.     1e43    LATIN SMALL LETTER M WITH DOT BELOW
 N.      1e44    LATIN CAPITAL LETTER N WITH DOT ABOVE
 n.      1e45    LATIN SMALL LETTER N WITH DOT ABOVE
 N-.     1e46    LATIN CAPITAL LETTER N WITH DOT BELOW
 n-.     1e47    LATIN SMALL LETTER N WITH DOT BELOW
 N_      1e48    LATIN CAPITAL LETTER N WITH LINE BELOW
 n_      1e49    LATIN SMALL LETTER N WITH LINE BELOW
 N->     1e4a    LATIN CAPITAL LETTER N WITH CIRCUMFLEX BELOW
 N->     1e4b    LATIN SMALL LETTER N WITH CIRCUMFLEX BELOW
 O?’     1e4c    LATIN CAPITAL LETTER O WITH TILDE AND ACUTE
 o?’     1e4d    LATIN SMALL LETTER O WITH TILDE AND ACUTE
 O?:     1e4e    LATIN CAPITAL LETTER O WITH TILDE AND DIAERESIS
 o?:     1e4f    LATIN SMALL LETTER O WITH TILDE AND DIAERESIS
 O-!     1e50    LATIN CAPITAL LETTER O WITH MACRON AND GRAVE
 o-!     1e51    LATIN SMALL LETTER O WITH MACRON AND GRAVE
 O-’     1e52    LATIN CAPITAL LETTER O WITH MACRON AND ACUTE
 o-’     1e53    LATIN SMALL LETTER O WITH MACRON AND ACUTE
 P’      1e54    LATIN CAPITAL LETTER P WITH ACUTE
 p’      1e55    LATIN SMALL LETTER P WITH ACUTE
 P.      1e56    LATIN CAPITAL LETTER P WITH DOT ABOVE
 p.      1e57    LATIN SMALL LETTER P WITH DOT ABOVE
 R.      1e58    LATIN CAPITAL LETTER R WITH DOT ABOVE
 r.      1e59    LATIN SMALL LETTER R WITH DOT ABOVE
 R-.     1e5a    LATIN CAPITAL LETTER R WITH DOT BELOW
 r-.     1e5b    LATIN SMALL LETTER R WITH DOT BELOW
 R--.    1e5c    LATIN CAPITAL LETTER R WITH DOT BELOW AND MACRON
 r--.    1e5d    LATIN SMALL LETTER R WITH DOT BELOW AND MACRON
 R_      1e5e    LATIN CAPITAL LETTER R WITH LINE BELOW
 r_      1e5f    LATIN SMALL LETTER R WITH LINE BELOW
 S.      1e60    LATIN CAPITAL LETTER S WITH DOT ABOVE
 s.      1e61    LATIN SMALL LETTER S WITH DOT ABOVE
 S-.     1e62    LATIN CAPITAL LETTER S WITH DOT BELOW
 s-.     1e63    LATIN SMALL LETTER S WITH DOT BELOW
 S’.     1e64    LATIN CAPITAL LETTER S WITH ACUTE AND DOT ABOVE
 s’.     1e65    LATIN SMALL LETTER S WITH ACUTE AND DOT ABOVE
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 S<.    1e66    LATIN CAPITAL LETTER S WITH CARON AND DOT ABOVE
 s<.    1e67    LATIN SMALL LETTER S WITH CARON AND DOT ABOVE
 S.-.   1e68    LATIN CAPITAL LETTER S WITH DOT BELOW AND DOT ABOVE
 S.-.   1e69    LATIN SMALL LETTER S WITH DOT BELOW AND DOT ABOVE
 T.     1e6a    LATIN CAPITAL LETTER T WITH DOT ABOVE
 t.     1e6b    LATIN SMALL LETTER T WITH DOT ABOVE
 T-.    1e6c    LATIN CAPITAL LETTER T WITH DOT BELOW
 t-.    1e6d    LATIN SMALL LETTER T WITH DOT BELOW
 T_     1e6e    LATIN CAPITAL LETTER T WITH LINE BELOW
 t_     1e6f    LATIN SMALL LETTER T WITH LINE BELOW
 T->    1e70    LATIN CAPITAL LETTER T WITH CIRCUMFLEX BELOW
 t->    1e71    LATIN SMALL LETTER T WITH CIRCUMFLEX BELOW
 U--:   1e72    LATIN CAPITAL LETTER U WITH DIAERESIS BELOW
 u--:   1e73    LATIN SMALL LETTER U WITH DIAERESIS BELOW
 U-?    1e74    LATIN CAPITAL LETTER U WITH TILDE BELOW
 u-?    1e75    LATIN SMALL LETTER U WITH TILDE BELOW
 U->    1e76    LATIN CAPITAL LETTER U WITH CIRCUMFLEX BELOW
 u->    1e77    LATIN SMALL LETTER U WITH CIRCUMFLEX BELOW
 U?’    1e78    LATIN CAPITAL LETTER U WITH TILDE AND ACUTE
 u?’    1e79    LATIN SMALL LETTER U WITH TILDE AND ACUTE
 U-:    1e7a    LATIN CAPITAL LETTER U WITH MACRON AND DIAERESIS
 u-:    1e7b    LATIN SMALL LETTER U WITH MACRON AND DIAERESIS
 V?     1e7c    LATIN CAPITAL LETTER V WITH TILDE
 v?     1e7d    LATIN SMALL LETTER V WITH TILDE
 V-.    1e7e    LATIN CAPITAL LETTER V WITH DOT BELOW
 v-.    1e7f    LATIN SMALL LETTER V WITH DOT BELOW
 W!     1e80    LATIN CAPITAL LETTER W WITH GRAVE
 w!     1e81    LATIN SMALL LETTER W WITH GRAVE
 W’     1e82    LATIN CAPITAL LETTER W WITH ACUTE
 w’     1e83    LATIN SMALL LETTER W WITH ACUTE
 W:     1e84    LATIN CAPITAL LETTER W WITH DIAERESIS
 w:     1e85    LATIN SMALL LETTER W WITH DIAERESIS
 W.     1e86    LATIN CAPITAL LETTER W WITH DOT ABOVE
 w.     1e87    LATIN SMALL LETTER W WITH DOT ABOVE
 W-.    1e88    LATIN CAPITAL LETTER W WITH DOT BELOW
 w-.    1e89    LATIN SMALL LETTER W WITH DOT BELOW
 X.     1e8a    LATIN CAPITAL LETTER X WITH DOT ABOVE
 x.     1e8b    LATIN SMALL LETTER X WITH DOT ABOVE
 X:     1e8c    LATIN CAPITAL LETTER X WITH DIAERESIS
 x:     1e8d    LATIN SMALL LETTER X WITH DIAERESIS
 Y.     1e8e    LATIN CAPITAL LETTER Y WITH DOT ABOVE
 y.     1e8f    LATIN SMALL LETTER Y WITH DOT ABOVE
 Z>     1e90    LATIN CAPITAL LETTER Z WITH CIRCUMFLEX
 z>     1e91    LATIN SMALL LETTER Z WITH CIRCUMFLEX
 Z-.    1e92    LATIN CAPITAL LETTER Z WITH DOT BELOW
 z-.    1e93    LATIN SMALL LETTER Z WITH DOT BELOW
 Z_     1e94    LATIN CAPITAL LETTER Z WITH LINE BELOW
 z_     1e95    LATIN SMALL LETTER Z WITH LINE BELOW
 h_     1e96    LATIN SMALL LETTER H WITH LINE BELOW
 t:     1e97    LATIN SMALL LETTER T WITH DIAERESIS
 w0     1e98    LATIN SMALL LETTER W WITH RING ABOVE
 y0     1e99    LATIN SMALL LETTER Y WITH RING ABOVE
 A-.    1ea0    LATIN CAPITAL LETTER A WITH DOT BELOW
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a-.	1ea1	LATIN SMALL LETTER A WITH DOT BELOW
A2	1ea2	LATIN CAPITAL LETTER A WITH HOOK ABOVE
a2	1ea3	LATIN SMALL LETTER A WITH HOOK ABOVE
A>'	1ea4	LATIN CAPITAL LETTER A WITH CIRCUMFLEX AND ACUTE
a>'	1ea5	LATIN SMALL LETTER A WITH CIRCUMFLEX AND ACUTE
A>!	1ea6	LATIN CAPITAL LETTER A WITH CIRCUMFLEX AND GRAVE
a>!	1ea7	LATIN SMALL LETTER A WITH CIRCUMFLEX AND GRAVE
A>2	1ea8	LATIN CAPITAL LETTER A WITH CIRCUMFLEX AND HOOK ABOVE
a>2	1ea9	LATIN SMALL LETTER A WITH CIRCUMFLEX AND HOOK ABOVE
A>?	1eaa	LATIN CAPITAL LETTER A WITH CIRCUMFLEX AND TILDE
a>?	1eab	LATIN SMALL LETTER A WITH CIRCUMFLEX AND TILDE
A>-.	1eac	LATIN CAPITAL LETTER A WITH CIRCUMFLEX AND DOT BELOW
a>-.	1ead	LATIN SMALL LETTER A WITH CIRCUMFLEX AND DOT BELOW
A('	1eae	LATIN CAPITAL LETTER A WITH BREVE AND ACUTE
a('	1eaf	LATIN SMALL LETTER A WITH BREVE AND ACUTE
A(!	1eb0	LATIN CAPITAL LETTER A WITH BREVE AND GRAVE
a(!	1eb1	LATIN SMALL LETTER A WITH BREVE AND GRAVE
A(2	1eb2	LATIN CAPITAL LETTER A WITH BREVE AND HOOK ABOVE
a(2	1eb3	LATIN SMALL LETTER A WITH BREVE AND HOOK ABOVE
A(?	1eb4	LATIN CAPITAL LETTER A WITH BREVE AND TILDE
a(?	1eb5	LATIN SMALL LETTER A WITH BREVE AND TILDE
A(-.	1eb6	LATIN CAPITAL LETTER A WITH BREVE AND DOT BELOW
a(-.	1eb7	LATIN SMALL LETTER A WITH BREVE AND DOT BELOW
E-.	1eb8	LATIN CAPITAL LETTER E WITH DOT BELOW
e-.	1eb9	LATIN SMALL LETTER E WITH DOT BELOW
E2	1eba	LATIN CAPITAL LETTER E WITH HOOK ABOVE
e2	1ebb	LATIN SMALL LETTER E WITH HOOK ABOVE
E?	1ebc	LATIN CAPITAL LETTER E WITH TILDE
e?	1ebd	LATIN SMALL LETTER E WITH TILDE
E>'	1ebe	LATIN CAPITAL LETTER E WITH CIRCUMFLEX AND ACUTE
e>'	1ebf	LATIN SMALL LETTER E WITH CIRCUMFLEX AND ACUTE
E>!	1ec0	LATIN CAPITAL LETTER E WITH CIRCUMFLEX AND GRAVE
e>!	1ec1	LATIN SMALL LETTER E WITH CIRCUMFLEX AND GRAVE
E>2	1ec2	LATIN CAPITAL LETTER E WITH CIRCUMFLEX AND HOOK ABOVE
e>2	1ec3	LATIN SMALL LETTER E WITH CIRCUMFLEX AND HOOK ABOVE
E>?	1ec4	LATIN CAPITAL LETTER E WITH CIRCUMFLEX AND TILDE
e>?	1ec5	LATIN SMALL LETTER E WITH CIRCUMFLEX AND TILDE
E>-.	1ec6	LATIN CAPITAL LETTER E WITH CIRCUMFLEX AND DOT BELOW
e>-.	1ec7	LATIN SMALL LETTER E WITH CIRCUMFLEX AND DOT BELOW
I2	1ec8	LATIN CAPITAL LETTER I WITH HOOK ABOVE
i2	1ec9	LATIN SMALL LETTER I WITH HOOK ABOVE
I-.	1eca	LATIN CAPITAL LETTER I WITH DOT BELOW
i-.	1ecb	LATIN SMALL LETTER I WITH DOT BELOW
O-.	1ecc	LATIN CAPITAL LETTER O WITH DOT BELOW
o-.	1ecd	LATIN SMALL LETTER O WITH DOT BELOW
O2	1ece	LATIN CAPITAL LETTER O WITH HOOK ABOVE
o2	1ecf	LATIN SMALL LETTER O WITH HOOK ABOVE
O>'	1ed0	LATIN CAPITAL LETTER O WITH CIRCUMFLEX AND ACUTE
o>'	1ed1	LATIN SMALL LETTER O WITH CIRCUMFLEX AND ACUTE
O>!	1ed2	LATIN CAPITAL LETTER O WITH CIRCUMFLEX AND GRAVE
o>!	1ed3	LATIN SMALL LETTER O WITH CIRCUMFLEX AND GRAVE
O>2	1ed4	LATIN CAPITAL LETTER O WITH CIRCUMFLEX AND HOOK ABOVE
o>2	1ed5	LATIN SMALL LETTER O WITH CIRCUMFLEX AND HOOK ABOVE

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 O>?    1ed6    LATIN CAPITAL LETTER O WITH CIRCUMFLEX AND TILDE
 o>?    1ed7    LATIN SMALL LETTER O WITH CIRCUMFLEX AND TILDE
 O>-.   1ed8    LATIN CAPITAL LETTER O WITH CIRCUMFLEX AND DOT BELOW
 o>-.   1ed9    LATIN SMALL LETTER O WITH CIRCUMFLEX AND DOT BELOW
 O9’    1eda    LATIN CAPITAL LETTER O WITH HORN AND ACUTE
 o9’    1edb    LATIN SMALL LETTER O WITH HORN AND ACUTE
 O9!    1edc    LATIN CAPITAL LETTER O WITH HORN AND GRAVE
 o9!    1edd    LATIN SMALL LETTER O WITH HORN AND GRAVE
 O92    1ede    LATIN CAPITAL LETTER O WITH HORN AND HOOK ABOVE
 o92    1edf    LATIN SMALL LETTER O WITH HORN AND HOOK ABOVE
 O9?    1ee0    LATIN CAPITAL LETTER O WITH HORN AND TILDE
 o9?    1ee1    LATIN SMALL LETTER O WITH HORN AND TILDE
 O9-.   1ee2    LATIN CAPITAL LETTER O WITH HORN AND DOT BELOW
 o9-.   1ee3    LATIN SMALL LETTER O WITH HORN AND DOT BELOW
 U-.    1ee4    LATIN CAPITAL LETTER U WITH DOT BELOW
 u-.    1ee5    LATIN SMALL LETTER U WITH DOT BELOW
 U2     1ee6    LATIN CAPITAL LETTER U WITH HOOK ABOVE
 u2     1ee7    LATIN SMALL LETTER U WITH HOOK ABOVE
 U9’    1ee8    LATIN CAPITAL LETTER U WITH HORN AND ACUTE
 u9’    1ee9    LATIN SMALL LETTER U WITH HORN AND ACUTE
 U9!    1eea    LATIN CAPITAL LETTER U WITH HORN AND GRAVE
 u9!    1eeb    LATIN SMALL LETTER U WITH HORN AND GRAVE
 U92    1eec    LATIN CAPITAL LETTER U WITH HORN AND HOOK ABOVE
 u92    1eed    LATIN SMALL LETTER U WITH HORN AND HOOK ABOVE
 U9?    1eee    LATIN CAPITAL LETTER U WITH HORN AND TILDE
 u9?    1eef    LATIN SMALL LETTER U WITH HORN AND TILDE
 U9-.   1ef0    LATIN CAPITAL LETTER U WITH HORN AND DOT BELOW
 u9-.   1ef1    LATIN SMALL LETTER U WITH HORN AND DOT BELOW
 Y!     1ef2    LATIN CAPITAL LETTER Y WITH GRAVE
 y!     1ef3    LATIN SMALL LETTER Y WITH GRAVE
 Y-.    1ef4    LATIN CAPITAL LETTER Y WITH DOT BELOW
 y-.    1ef5    LATIN SMALL LETTER Y WITH DOT BELOW
 Y2     1ef6    LATIN CAPITAL LETTER Y WITH HOOK ABOVE
 y2     1ef7    LATIN SMALL LETTER Y WITH HOOK ABOVE
 Y?     1ef8    LATIN CAPITAL LETTER Y WITH TILDE
 y?     1ef9    LATIN SMALL LETTER Y WITH TILDE
 ;’     1f00    GREEK DASIA AND ACUTE ACCENT
 ,’     1f01    GREEK PSILI AND ACUTE ACCENT
 ;!     1f02    GREEK DASIA AND VARIA
 ,!     1f03    GREEK PSILI AND VARIA
 ?;     1f04    GREEK DASIA AND PERISPOMENI
 ?,     1f05    GREEK PSILI AND PERISPOMENI
 !:     1f06    GREEK DIAERESIS AND VARIA
 ?:     1f07    GREEK DIAERESIS AND PERISPOMENI
 1N     2002    EN SPACE
 1M     2003    EM SPACE
 3M     2004    THREE-PER-EM SPACE
 4M     2005    FOUR-PER-EM SPACE
 6M     2006    SIX-PER-EM SPACE
 1T     2009    THIN SPACE
 1H     200a    HAIR SPACE
 -1     2010    HYPHEN
 -N     2013    EN DASH
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-M	2014	EM DASH
-3	2015	HORIZONTAL BAR
!2	2016	DOUBLE VERTICAL LINE
=2	2017	DOUBLE LOW LINE
’6	2018	LEFT SINGLE QUOTATION MARK
’9	2019	RIGHT SINGLE QUOTATION MARK
.9	201a	SINGLE LOW-9 QUOTATION MARK
9’	201b	SINGLE HIGH-REVERSED-9 QUOTATION MARK
"6	201c	LEFT DOUBLE QUOTATION MARK
"9	201d	RIGHT DOUBLE QUOTATION MARK
:9	201e	DOUBLE LOW-9 QUOTATION MARK
9"	201f	DOUBLE HIGH-REVERSED-9 QUOTATION MARK
/-	2020	DAGGER
/=	2021	DOUBLE DAGGER
..	2025	TWO DOT LEADER
%0	2030	PER MILLE SIGN
1’	2032	PRIME
2’	2033	DOUBLE PRIME
3’	2034	TRIPLE PRIME
1"	2035	REVERSED PRIME
2"	2036	REVERSED DOUBLE PRIME
3"	2037	REVERSED TRIPLE PRIME
Ca	2038	CARET
<1	2039	SINGLE LEFT-POINTING ANGLE QUOTATION MARK
>1	203a	SINGLE RIGHT-POINTING ANGLE QUOTATION MARK
:X	203b	REFERENCE MARK
!*2	203c	DOUBLE EXCLAMATION MARK
’-	203e	OVERLINE
/f	2044	FRACTION SLASH
0S	2070	SUPERSCRIPT DIGIT ZERO
4S	2074	SUPERSCRIPT DIGIT FOUR
5S	2075	SUPERSCRIPT DIGIT FIVE
6S	2076	SUPERSCRIPT DIGIT SIX
7S	2077	SUPERSCRIPT DIGIT SEVEN
8S	2078	SUPERSCRIPT DIGIT EIGHT
9S	2079	SUPERSCRIPT DIGIT NINE
+S	207a	SUPERSCRIPT PLUS SIGN
-S	207b	SUPERSCRIPT MINUS
=S	207c	SUPERSCRIPT EQUALS SIGN
(S	207d	SUPERSCRIPT LEFT PARENTHESIS
)S	207e	SUPERSCRIPT RIGHT PARENTHESIS
nS	207f	SUPERSCRIPT LATIN SMALL LETTER N
0s	2080	SUBSCRIPT DIGIT ZERO
1s	2081	SUBSCRIPT DIGIT ONE
2s	2082	SUBSCRIPT DIGIT TWO
3s	2083	SUBSCRIPT DIGIT THREE
4s	2084	SUBSCRIPT DIGIT FOUR
5s	2085	SUBSCRIPT DIGIT FIVE
6s	2086	SUBSCRIPT DIGIT SIX
7s	2087	SUBSCRIPT DIGIT SEVEN
8s	2088	SUBSCRIPT DIGIT EIGHT
9s	2089	SUBSCRIPT DIGIT NINE
+s	208a	SUBSCRIPT PLUS SIGN

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 -s     208b    SUBSCRIPT MINUS
 =s     208c    SUBSCRIPT EQUALS SIGN
 (s     208d    SUBSCRIPT LEFT PARENTHESIS
 )s     208e    SUBSCRIPT RIGHT PARENTHESIS
 Li     20a4    LIRA SIGN
 Pt     20a7    PESETA SIGN
 W=     20a9    WON SIGN
 oC     2103    DEGREE CENTIGRADE
 co     2105    CARE OF
 oF     2109    DEGREE FAHRENHEIT
 N0     2116    NUMERO SIGN
 PO     2117    SOUND RECORDING COPYRIGHT
 Rx     211e    PRESCRIPTION TAKE
 SM     2120    SERVICE MARK
 TM     2122    TRADE MARK SIGN
 Om     2126    OHM SIGN
 AO     212b    ANGSTROEM SIGN
 13     2153    VULGAR FRACTION ONE THIRD
 23     2154    VULGAR FRACTION TWO THIRDS
 15     2155    VULGAR FRACTION ONE FIFTH
 25     2156    VULGAR FRACTION TWO FIFTHS
 35     2157    VULGAR FRACTION THREE FIFTHS
 45     2158    VULGAR FRACTION FOUR FIFTHS
 16     2159    VULGAR FRACTION ONE SIXTH
 56     215a    VULGAR FRACTION FIVE SIXTHS
 18     215b    VULGAR FRACTION ONE EIGHTH
 38     215c    VULGAR FRACTION THREE EIGHTHS
 58     215d    VULGAR FRACTION FIVE EIGHTHS
 78     215e    VULGAR FRACTION SEVEN EIGHTHS
 1R     2160    ROMAN NUMERAL ONE
 2R     2161    ROMAN NUMERAL TWO
 3R     2162    ROMAN NUMERAL THREE
 4R     2163    ROMAN NUMERAL FOUR
 5R     2164    ROMAN NUMERAL FIVE
 6R     2165    ROMAN NUMERAL SIX
 7R     2166    ROMAN NUMERAL SEVEN
 8R     2167    ROMAN NUMERAL EIGHT
 9R     2168    ROMAN NUMERAL NINE
 aR     2169    ROMAN NUMERAL TEN
 bR     216a    ROMAN NUMERAL ELEVEN
 cR     216b    ROMAN NUMERAL TWELVE
 50R    216c    ROMAN NUMERAL FIFTY
 100R   216d    ROMAN NUMERAL ONE HUNDRED
 500R   216e    ROMAN NUMERAL FIVE HUNDRED
 1000R  216f    ROMAN NUMERAL ONE THOUSAND
 1r     2170    SMALL ROMAN NUMERAL ONE
 2r     2171    SMALL ROMAN NUMERAL TWO
 3r     2172    SMALL ROMAN NUMERAL THREE
 4r     2173    SMALL ROMAN NUMERAL FOUR
 5r     2174    SMALL ROMAN NUMERAL FIVE
 6r     2175    SMALL ROMAN NUMERAL SIX
 7r     2176    SMALL ROMAN NUMERAL SEVEN
 8r     2177    SMALL ROMAN NUMERAL EIGHT
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9r	2178	SMALL ROMAN NUMERAL NINE
ar	2179	SMALL ROMAN NUMERAL TEN
br	217a	SMALL ROMAN NUMERAL ELEVEN
cr	217b	SMALL ROMAN NUMERAL TWELVE
50r	217c	SMALL ROMAN NUMERAL FIFTY
100r	217d	SMALL ROMAN NUMERAL ONE HUNDRED
500r	217e	SMALL ROMAN NUMERAL FIVE HUNDRED
1000r	217f	SMALL ROMAN NUMERAL ONE THOUSAND
1000RCD	2180	ROMAN NUMERAL ONE THOUSAND C D
5000R	2181	ROMAN NUMERAL FIVE THOUSAND
10000R	2182	ROMAN NUMERAL TEN THOUSAND
<-	2190	LEFTWARDS ARROW
-!	2191	UPWARDS ARROW
->	2192	RIGHTWARDS ARROW
-v	2193	DOWNWARDS ARROW
<>	2194	LEFT RIGHT ARROW
UD	2195	UP DOWN ARROW
<!!	2196	NORTH WEST ARROW
//>	2197	NORTH EAST ARROW
!!>	2198	SOUTH EAST ARROW
<//	2199	SOUTH WEST ARROW
<=	21d0	LEFTWARDS DOUBLE ARROW
=>	21d2	RIGHTWARDS DOUBLE ARROW
==	21d4	LEFT RIGHT DOUBLE ARROW
FA	2200	FOR ALL
dP	2202	PARTIAL DIFFERENTIAL
TE	2203	THERE EXISTS
/0	2205	EMPTY SET
DE	2206	INCREMENT
NB	2207	NABLA
(-	2208	ELEMENT OF
-)	220b	CONTAINS AS MEMBER
*P	220f	N-ARY PRODUCT
+Z	2211	N-ARY SUMMATION
-2	2212	MINUS SIGN
-+	2213	MINUS-OR-PLUS SIGN
*-	2217	ASTERISK OPERATOR
Ob	2218	RING OPERATOR
Sb	2219	BULLET OPERATOR
RT	221a	SQUARE ROOT
0(	221d	PROPORTIONAL TO
00	221e	INFINITY
-L	221f	RIGHT ANGLE
-V	2220	ANGLE
PP	2225	PARALLEL TO
AN	2227	LOGICAL AND
OR	2228	LOGICAL OR
(U	2229	INTERSECTION
)U	222a	UNION
In	222b	INTEGRAL
DI	222c	DOUBLE INTEGRAL
Io	222e	CONTOUR INTEGRAL
.:	2234	THEREFORE

:.	2235	BECAUSE
:R	2236	RATIO
::	2237	PROPORTION
?1	223c	TILDE OPERATOR
CG	223e	INVERTED LAZY S
?-	2243	ASYMPTOTICALLY EQUAL TO
?=	2245	APPROXIMATELY EQUAL TO
?2	2248	ALMOST EQUAL TO
=?	224c	ALL EQUAL TO
HI	2253	IMAGE OF OR APPROXIMATELY EQUAL TO
!=	2260	NOT EQUAL TO
=3	2261	IDENTICAL TO
=<	2264	LESS-THAN OR EQUAL TO
>=	2265	GREATER-THAN OR EQUAL TO
<*	226a	MUCH LESS-THAN
*>	226b	MUCH GREATER-THAN
!<	226e	NOT LESS-THAN
!>	226f	NOT GREATER-THAN
(C	2282	SUBSET OF
)C	2283	SUPERSET OF
(_	2286	SUBSET OF OR EQUAL TO
)_	2287	SUPERSET OF OR EQUAL TO
0.	2299	CIRCLED DOT OPERATOR
02	229a	CIRCLED RING OPERATOR
-T	22a5	UP TACK
.P	22c5	DOT OPERATOR
:3	22ee	VERTICAL ELLIPSIS
.3	22ef	MIDLINE HORIZONTAL ELLIPSIS
Eh	2302	HOUSE
<7	2308	LEFT CEILING
>7	2309	RIGHT CEILING
7<	230a	LEFT FLOOR
7>	230b	RIGHT FLOOR
NI	2310	REVERSED NOT SIGN
(A	2312	ARC
TR	2315	TELEPHONE RECORDER
Iu	2320	TOP HALF INTEGRAL
Il	2321	BOTTOM HALF INTEGRAL
</	2329	LEFT-POINTING ANGLE BRACKET
/>	232a	RIGHT-POINTING ANGLE BRACKET
Vs	2423	OPEN BOX
1h	2440	OCR HOOK
3h	2441	OCR CHAIR
2h	2442	OCR FORK
4h	2443	OCR INVERTED FORK
1j	2446	OCR BRANCH BANK IDENTIFICATION
2j	2447	OCR AMOUNT OF CHECK
3j	2448	OCR DASH
4j	2449	OCR CUSTOMER ACCOUNT NUMBER
1-o	2460	CIRCLED DIGIT ONE
2-o	2461	CIRCLED DIGIT TWO
3-o	2462	CIRCLED DIGIT THREE
4-o	2463	CIRCLED DIGIT FOUR

5-o	2464	CIRCLED DIGIT FIVE
6-o	2465	CIRCLED DIGIT SIX
7-o	2466	CIRCLED DIGIT SEVEN
8-o	2467	CIRCLED DIGIT EIGHT
9-o	2468	CIRCLED DIGIT NINE
10-o	2469	CIRCLED NUMBER TEN
11-o	246a	CIRCLED NUMBER ELEVEN
12-o	246b	CIRCLED NUMBER TWELVE
13-o	246c	CIRCLED NUMBER THIRTEEN
14-o	246d	CIRCLED NUMBER FOURTEEN
15-o	246e	CIRCLED NUMBER FIFTEEN
16-o	246f	CIRCLED NUMBER SIXTEEN
17-o	2470	CIRCLED NUMBER SEVENTEEN
18-o	2471	CIRCLED NUMBER EIGHTEEN
19-o	2472	CIRCLED NUMBER NINETEEN
20-o	2473	CIRCLED NUMBER TWENTY
(1)	2474	PARENTHESIZED DIGIT ONE
(2)	2475	PARENTHESIZED DIGIT TWO
(3)	2476	PARENTHESIZED DIGIT THREE
(4)	2477	PARENTHESIZED DIGIT FOUR
(5)	2478	PARENTHESIZED DIGIT FIVE
(6)	2479	PARENTHESIZED DIGIT SIX
(7)	247a	PARENTHESIZED DIGIT SEVEN
(8)	247b	PARENTHESIZED DIGIT EIGHT
(9)	247c	PARENTHESIZED DIGIT NINE
(10)	247d	PARENTHESIZED NUMBER TEN
(11)	247e	PARENTHESIZED NUMBER ELEVEN
(12)	247f	PARENTHESIZED NUMBER TWELVE
(13)	2480	PARENTHESIZED NUMBER THIRTEEN
(14)	2481	PARENTHESIZED NUMBER FOURTEEN
(15)	2482	PARENTHESIZED NUMBER FIFTEEN
(16)	2483	PARENTHESIZED NUMBER SIXTEEN
(17)	2484	PARENTHESIZED NUMBER SEVENTEEN
(18)	2485	PARENTHESIZED NUMBER EIGHTEEN
(19)	2486	PARENTHESIZED NUMBER NINETEEN
(20)	2487	PARENTHESIZED NUMBER TWENTY
1.	2488	DIGIT ONE FULL STOP
2.	2489	DIGIT TWO FULL STOP
3.	248a	DIGIT THREE FULL STOP
4.	248b	DIGIT FOUR FULL STOP
5.	248c	DIGIT FIVE FULL STOP
6.	248d	DIGIT SIX FULL STOP
7.	248e	DIGIT SEVEN FULL STOP
8.	248f	DIGIT EIGHT FULL STOP
9.	2490	DIGIT NINE FULL STOP
10.	2491	NUMBER TEN FULL STOP
11.	2492	NUMBER ELEVEN FULL STOP
12.	2493	NUMBER TWELVE FULL STOP
13.	2494	NUMBER THIRTEEN FULL STOP
14.	2495	NUMBER FOURTEEN FULL STOP
15.	2496	NUMBER FIFTEEN FULL STOP
16.	2497	NUMBER SIXTEEN FULL STOP
17.	2498	NUMBER SEVENTEEN FULL STOP

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 18.    2499    NUMBER EIGHTEEN FULL STOP
 19.    249a    NUMBER NINETEEN FULL STOP
 20.    249b    NUMBER TWENTY FULL STOP
 (a)    249c    PARENTHESIZED LATIN SMALL LETTER A
 (b)    249d    PARENTHESIZED LATIN SMALL LETTER B
 (c)    249e    PARENTHESIZED LATIN SMALL LETTER C
 (d)    249f    PARENTHESIZED LATIN SMALL LETTER D
 (e)    24a0    PARENTHESIZED LATIN SMALL LETTER E
 (f)    24a1    PARENTHESIZED LATIN SMALL LETTER F
 (g)    24a2    PARENTHESIZED LATIN SMALL LETTER G
 (h)    24a3    PARENTHESIZED LATIN SMALL LETTER H
 (i)    24a4    PARENTHESIZED LATIN SMALL LETTER I
 (j)    24a5    PARENTHESIZED LATIN SMALL LETTER J
 (k)    24a6    PARENTHESIZED LATIN SMALL LETTER K
 (l)    24a7    PARENTHESIZED LATIN SMALL LETTER L
 (m)    24a8    PARENTHESIZED LATIN SMALL LETTER M
 (n)    24a9    PARENTHESIZED LATIN SMALL LETTER N
 (o)    24aa    PARENTHESIZED LATIN SMALL LETTER O
 (p)    24ab    PARENTHESIZED LATIN SMALL LETTER P
 (q)    24ac    PARENTHESIZED LATIN SMALL LETTER Q
 (r)    24ad    PARENTHESIZED LATIN SMALL LETTER R
 (s)    24ae    PARENTHESIZED LATIN SMALL LETTER S
 (t)    24af    PARENTHESIZED LATIN SMALL LETTER T
 (u)    24b0    PARENTHESIZED LATIN SMALL LETTER U
 (v)    24b1    PARENTHESIZED LATIN SMALL LETTER V
 (w)    24b2    PARENTHESIZED LATIN SMALL LETTER W
 (x)    24b3    PARENTHESIZED LATIN SMALL LETTER X
 (y)    24b4    PARENTHESIZED LATIN SMALL LETTER Y
 (z)    24b5    PARENTHESIZED LATIN SMALL LETTER Z
 A-o    24b6    CIRCLED LATIN CAPITAL LETTER A
 B-o    24b7    CIRCLED LATIN CAPITAL LETTER B
 C-o    24b8    CIRCLED LATIN CAPITAL LETTER C
 D-o    24b9    CIRCLED LATIN CAPITAL LETTER D
 E-o    24ba    CIRCLED LATIN CAPITAL LETTER E
 F-o    24bb    CIRCLED LATIN CAPITAL LETTER F
 G-o    24bc    CIRCLED LATIN CAPITAL LETTER G
 H-o    24bd    CIRCLED LATIN CAPITAL LETTER H
 I-o    24be    CIRCLED LATIN CAPITAL LETTER I
 J-o    24bf    CIRCLED LATIN CAPITAL LETTER J
 K-o    24c0    CIRCLED LATIN CAPITAL LETTER K
 L-o    24c1    CIRCLED LATIN CAPITAL LETTER L
 M-o    24c2    CIRCLED LATIN CAPITAL LETTER M
 N-o    24c3    CIRCLED LATIN CAPITAL LETTER N
 O-o    24c4    CIRCLED LATIN CAPITAL LETTER O
 P-o    24c5    CIRCLED LATIN CAPITAL LETTER P
 Q-o    24c6    CIRCLED LATIN CAPITAL LETTER Q
 R-o    24c7    CIRCLED LATIN CAPITAL LETTER R
 S-o    24c8    CIRCLED LATIN CAPITAL LETTER S
 T-o    24c9    CIRCLED LATIN CAPITAL LETTER T
 U-o    24ca    CIRCLED LATIN CAPITAL LETTER U
 V-o    24cb    CIRCLED LATIN CAPITAL LETTER V
 W-o    24cc    CIRCLED LATIN CAPITAL LETTER W
 X-o    24cd    CIRCLED LATIN CAPITAL LETTER X
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 Y-o    24ce    CIRCLED LATIN CAPITAL LETTER Y
 Z-o    24cf    CIRCLED LATIN CAPITAL LETTER Z
 a-o    24d0    CIRCLED LATIN SMALL LETTER A
 b-o    24d1    CIRCLED LATIN SMALL LETTER B
 c-o    24d2    CIRCLED LATIN SMALL LETTER C
 d-o    24d3    CIRCLED LATIN SMALL LETTER D
 e-o    24d4    CIRCLED LATIN SMALL LETTER E
 f-o    24d5    CIRCLED LATIN SMALL LETTER F
 g-o    24d6    CIRCLED LATIN SMALL LETTER G
 h-o    24d7    CIRCLED LATIN SMALL LETTER H
 i-o    24d8    CIRCLED LATIN SMALL LETTER I
 j-o    24d9    CIRCLED LATIN SMALL LETTER J
 k-o    24da    CIRCLED LATIN SMALL LETTER K
 l-o    24db    CIRCLED LATIN SMALL LETTER L
 m-o    24dc    CIRCLED LATIN SMALL LETTER M
 n-o    24dd    CIRCLED LATIN SMALL LETTER N
 o-o    24de    CIRCLED LATIN SMALL LETTER O
 p-o    24df    CIRCLED LATIN SMALL LETTER P
 q-o    24e0    CIRCLED LATIN SMALL LETTER Q
 r-o    24e1    CIRCLED LATIN SMALL LETTER R
 s-o    24e2    CIRCLED LATIN SMALL LETTER S
 t-o    24e3    CIRCLED LATIN SMALL LETTER T
 u-o    24e4    CIRCLED LATIN SMALL LETTER U
 v-o    24e5    CIRCLED LATIN SMALL LETTER V
 w-o    24e6    CIRCLED LATIN SMALL LETTER W
 x-o    24e7    CIRCLED LATIN SMALL LETTER X
 y-o    24e8    CIRCLED LATIN SMALL LETTER Y
 z-o    24e9    CIRCLED LATIN SMALL LETTER Z
 0-o    24ea    CIRCLED DIGIT ZERO
 hh     2500    BOX DRAWINGS LIGHT HORIZONTAL
 HH     2501    BOX DRAWINGS HEAVY HORIZONTAL
 vv     2502    BOX DRAWINGS LIGHT VERTICAL
 VV     2503    BOX DRAWINGS HEAVY VERTICAL
 3-     2504    BOX DRAWINGS LIGHT TRIPLE DASH HORIZONTAL
 3_     2505    BOX DRAWINGS HEAVY TRIPLE DASH HORIZONTAL
 3!     2506    BOX DRAWINGS LIGHT TRIPLE DASH VERTICAL
 3/     2507    BOX DRAWINGS HEAVY TRIPLE DASH VERTICAL
 4-     2508    BOX DRAWINGS LIGHT QUADRUPLE DASH HORIZONTAL
 4_     2509    BOX DRAWINGS HEAVY QUADRUPLE DASH HORIZONTAL
 4!     250a    BOX DRAWINGS LIGHT QUADRUPLE DASH VERTICAL
 4/     250b    BOX DRAWINGS HEAVY QUADRUPLE DASH VERTICAL
 dr     250c    BOX DRAWINGS LIGHT DOWN AND RIGHT
 dR     250d    BOX DRAWINGS DOWN LIGHT AND RIGHT HEAVY
 Dr     250e    BOX DRAWINGS DOWN HEAVY AND RIGHT LIGHT
 DR     250f    BOX DRAWINGS HEAVY DOWN AND RIGHT
 dl     2510    BOX DRAWINGS LIGHT DOWN AND LEFT
 dL     2511    BOX DRAWINGS DOWN LIGHT AND LEFT HEAVY
 Dl     2512    BOX DRAWINGS DOWN HEAVY AND LEFT LIGHT
 LD     2513    BOX DRAWINGS HEAVY DOWN AND LEFT
 ur     2514    BOX DRAWINGS LIGHT UP AND RIGHT
 uR     2515    BOX DRAWINGS UP LIGHT AND RIGHT HEAVY
 Ur     2516    BOX DRAWINGS UP HEAVY AND RIGHT LIGHT
 UR     2517    BOX DRAWINGS HEAVY UP AND RIGHT
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 ul     2518    BOX DRAWINGS LIGHT UP AND LEFT
 uL     2519    BOX DRAWINGS UP LIGHT AND LEFT HEAVY
 Ul     251a    BOX DRAWINGS UP HEAVY AND LEFT LIGHT
 UL     251b    BOX DRAWINGS HEAVY UP AND LEFT
 vr     251c    BOX DRAWINGS LIGHT VERTICAL AND RIGHT
 vR     251d    BOX DRAWINGS VERTICAL LIGHT AND RIGHT HEAVY
 Udr    251e    BOX DRAWINGS UP HEAVY AND RIGHT DOWN LIGHT
 uDr    251f    BOX DRAWINGS DOWN HEAVY AND RIGHT UP LIGHT
 Vr     2520    BOX DRAWINGS VERTICAL HEAVY AND RIGHT LIGHT
 UdR    2521    BOX DRAWINGS DOWN LIGHT AND RIGHT UP HEAVY
 uDR    2522    BOX DRAWINGS UP LIGHT AND RIGHT DOWN HEAVY
 VR     2523    BOX DRAWINGS HEAVY VERTICAL AND RIGHT
 vl     2524    BOX DRAWINGS LIGHT VERTICAL AND LEFT
 vL     2525    BOX DRAWINGS VERTICAL LIGHT AND LEFT HEAVY
 Udl    2526    BOX DRAWINGS UP HEAVY AND LEFT DOWN LIGHT
 uDl    2527    BOX DRAWINGS DOWN HEAVY AND LEFT UP LIGHT
 Vl     2528    BOX DRAWINGS VERTICAL HEAVY AND LEFT LIGHT
 UdL    2529    BOX DRAWINGS DOWN LIGHT AND LEFT UP HEAVY
 uDL    252a    BOX DRAWINGS UP LIGHT AND LEFT DOWN HEAVY
 VL     252b    BOX DRAWINGS HEAVY VERTICAL AND LEFT
 dh     252c    BOX DRAWINGS LIGHT DOWN AND HORIZONTAL
 dLr    252d    BOX DRAWINGS LEFT HEAVY AND RIGHT DOWN LIGHT
 dlR    252e    BOX DRAWINGS RIGHT HEAVY AND LEFT DOWN LIGHT
 dH     252f    BOX DRAWINGS DOWN LIGHT AND HORIZONTAL HEAVY
 Dh     2530    BOX DRAWINGS DOWN HEAVY AND HORIZONTAL LIGHT
 DLr    2531    BOX DRAWINGS RIGHT LIGHT AND LEFT DOWN HEAVY
 DlR    2532    BOX DRAWINGS LEFT LIGHT AND RIGHT DOWN HEAVY
 DH     2533    BOX DRAWINGS HEAVY DOWN AND HORIZONTAL
 uh     2534    BOX DRAWINGS LIGHT UP AND HORIZONTAL
 uLr    2535    BOX DRAWINGS LEFT HEAVY AND RIGHT UP LIGHT
 ulR    2536    BOX DRAWINGS RIGHT HEAVY AND LEFT UP LIGHT
 uH     2537    BOX DRAWINGS UP LIGHT AND HORIZONTAL HEAVY
 Uh     2538    BOX DRAWINGS UP HEAVY AND HORIZONTAL LIGHT
 ULr    2539    BOX DRAWINGS RIGHT LIGHT AND LEFT UP HEAVY
 UlR    253a    BOX DRAWINGS LEFT LIGHT AND RIGHT UP HEAVY
 UH     253b    BOX DRAWINGS HEAVY UP AND HORIZONTAL
 vh     253c    BOX DRAWINGS LIGHT VERTICAL AND HORIZONTAL
 vLr    253d    BOX DRAWINGS LEFT HEAVY AND RIGHT VERTICAL LIGHT
 vlR    253e    BOX DRAWINGS RIGHT HEAVY AND LEFT VERTICAL LIGHT
 vH     253f    BOX DRAWINGS VERTICAL LIGHT AND HORIZONTAL HEAVY
 Udh    2540    BOX DRAWINGS UP HEAVY AND DOWN HORIZONTAL LIGHT
 uDh    2541    BOX DRAWINGS DOWN HEAVY AND UP HORIZONTAL LIGHT
 Vh     2542    BOX DRAWINGS VERTICAL HEAVY AND HORIZONTAL LIGHT
 UdLr   2543    BOX DRAWINGS LEFT UP HEAVY AND RIGHT DOWN LIGHT
 UdlR   2544    BOX DRAWINGS RIGHT UP HEAVY AND LEFT DOWN LIGHT
 uDLr   2545    BOX DRAWINGS LEFT DOWN HEAVY AND RIGHT UP LIGHT
 uDlR   2546    BOX DRAWINGS RIGHT DOWN HEAVY AND LEFT UP LIGHT
 UdH    2547    BOX DRAWINGS DOWN LIGHT AND UP HORIZONTAL HEAVY
 uDH    2548    BOX DRAWINGS UP LIGHT AND DOWN HORIZONTAL HEAVY
 VLr    2549    BOX DRAWINGS RIGHT LIGHT AND LEFT VERTICAL HEAVY
 VlR    254a    BOX DRAWINGS LEFT LIGHT AND RIGHT VERTICAL HEAVY
 VH     254b    BOX DRAWINGS HEAVY VERTICAL AND HORIZONTAL
 FD     2571    BOX DRAWINGS LIGHT DIAGONAL UPPER RIGHT TO LOWER LEFT
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BD	2572	BOX DRAWINGS LIGHT DIAGONAL UPPER LEFT TO LOWER RIGHT
TB	2580	UPPER HALF BLOCK
LB	2584	LOWER HALF BLOCK
FB	2588	FULL BLOCK
lB	258c	LEFT HALF BLOCK
RB	2590	RIGHT HALF BLOCK
.S	2591	LIGHT SHADE
:S	2592	MEDIUM SHADE
?S	2593	DARK SHADE
fS	25a0	BLACK SQUARE
OS	25a1	WHITE SQUARE
RO	25a2	WHITE SQUARE WITH ROUNDED CORNERS
Rr	25a3	WHITE SQUARE CONTAINING BLACK SMALL SQUARE
RF	25a4	SQUARE WITH HORIZONTAL FILL
RY	25a5	SQUARE WITH VERTICAL FILL
RH	25a6	SQUARE WITH ORTHOGONAL CROSSHATCH FILL
RZ	25a7	SQUARE WITH UPPER LEFT TO LOWER RIGHT FILL
RK	25a8	SQUARE WITH UPPER RIGHT TO LOWER LEFT FILL
RX	25a9	SQUARE WITH DIAGONAL CROSSHATCH FILL
sB	25aa	BLACK SMALL SQUARE
SR	25ac	BLACK RECTANGLE
Or	25ad	WHITE RECTANGLE
UT	25b2	BLACK UP-POINTING TRIANGLE
uT	25b3	WHITE UP-POINTING TRIANGLE
PR	25b6	BLACK RIGHT-POINTING TRIANGLE
Tr	25b7	WHITE RIGHT-POINTING TRIANGLE
Dt	25bc	BLACK DOWN-POINTING TRIANGLE
dT	25bd	WHITE DOWN-POINTING TRIANGLE
PL	25c0	BLACK LEFT-POINTING TRIANGLE
Tl	25c1	WHITE LEFT-POINTING TRIANGLE
Db	25c6	BLACK DIAMOND
Dw	25c7	WHITE DIAMOND
LZ	25ca	LOZENGE
0m	25cb	WHITE CIRCLE
0o	25ce	BULLSEYE
0M	25cf	BLACK CIRCLE
0L	25d0	CIRCLE WITH LEFT HALF BLACK
0R	25d1	CIRCLE WITH RIGHT HALF BLACK
Sn	25d8	INVERSE BULLET
Ic	25d9	INVERSE WHITE CIRCLE
Fd	25e2	BLACK LOWER RIGHT TRIANGLE
Bd	25e3	BLACK LOWER LEFT TRIANGLE
*2	2605	BLACK STAR
*1	2606	WHITE STAR
TEL	260e	BLACK TELEPHONE
tel	260f	WHITE TELEPHONE
<H	261c	WHITE LEFT POINTING INDEX
>H	261e	WHITE RIGHT POINTING INDEX
0u	263a	WHITE SMILING FACE
0U	263b	BLACK SMILING FACE
SU	263c	WHITE SUN WITH RAYS
Fm	2640	FEMALE SIGN
Ml	2642	MALE SIGN

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 cS     2660    BLACK SPADE SUIT
 cH     2661    WHITE HEART SUIT
 cD     2662    WHITE DIAMOND SUIT
 cC     2663    BLACK CLUB SUIT
 cS-    2664    WHITE SPADE SUIT
 cH-    2665    BLACK HEART SUIT
 cD-    2666    BLACK DIAMOND SUIT
 cC-    2667    WHITE CLUB SUIT
 Md     2669    QUARTER NOTE
 M8     266a    EIGHTH NOTE
 M2     266b    BARRED EIGHTH NOTES
 M16    266c    BARRED SIXTEENTH NOTES
 Mb     266d    MUSIC FLAT SIGN
 Mx     266e    MUSIC NATURAL SIGN
 MX     266f    MUSIC SHARP SIGN
 OK     2713    CHECK MARK
 XX     2717    BALLOT X
 -X     2720    MALTESE CROSS
 IS     3000    IDEOGRAPHIC SPACE
 ,_     3001    IDEOGRAPHIC COMMA
 ._     3002    IDEOGRAPHIC PERIOD
 +"     3003    DITTO MARK
 +_     3004    IDEOGRAPHIC DITTO MARK
 *_     3005    IDEOGRAPHIC ITERATION MARK
 ;_     3006    IDEOGRAPHIC CLOSING MARK
 0_     3007    IDEOGRAPHIC NUMBER ZERO
 <+     300a    LEFT DOUBLE ANGLE BRACKET
 >+     300b    RIGHT DOUBLE ANGLE BRACKET
 <'     300c    LEFT CORNER BRACKET
 >'     300d    RIGHT CORNER BRACKET
 <"     300e    LEFT WHITE CORNER BRACKET
 >"     300f    RIGHT WHITE CORNER BRACKET
 ("     3010    LEFT BLACK LENTICULAR BRACKET
 )"     3011    RIGHT BLACK LENTICULAR BRACKET
 =T     3012    POSTAL MARK
 =_     3013    GETA MARK
 ('     3014    LEFT TORTOISE SHELL BRACKET
 )'     3015    RIGHT TORTOISE SHELL BRACKET
 (I     3016    LEFT WHITE LENTICULAR BRACKET
 )I     3017    RIGHT WHITE LENTICULAR BRACKET
 -?     301c    WAVE DASH
 =T:)   3020    POSTAL MARK FACE
 A5     3041    HIRAGANA LETTER SMALL A
 a5     3042    HIRAGANA LETTER A
 I5     3043    HIRAGANA LETTER SMALL I
 i5     3044    HIRAGANA LETTER I
 U5     3045    HIRAGANA LETTER SMALL U
 u5     3046    HIRAGANA LETTER U
 E5     3047    HIRAGANA LETTER SMALL E
 e5     3048    HIRAGANA LETTER E
 O5     3049    HIRAGANA LETTER SMALL O
 o5     304a    HIRAGANA LETTER O
 ka     304b    HIRAGANA LETTER KA
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 ga     304c    HIRAGANA LETTER GA
 ki     304d    HIRAGANA LETTER KI
 gi     304e    HIRAGANA LETTER GI
 ku     304f    HIRAGANA LETTER KU
 gu     3050    HIRAGANA LETTER GU
 ke     3051    HIRAGANA LETTER KE
 ge     3052    HIRAGANA LETTER GE
 ko     3053    HIRAGANA LETTER KO
 go     3054    HIRAGANA LETTER GO
 sa     3055    HIRAGANA LETTER SA
 za     3056    HIRAGANA LETTER ZA
 si     3057    HIRAGANA LETTER SI
 zi     3058    HIRAGANA LETTER ZI
 su     3059    HIRAGANA LETTER SU
 zu     305a    HIRAGANA LETTER ZU
 se     305b    HIRAGANA LETTER SE
 ze     305c    HIRAGANA LETTER ZE
 so     305d    HIRAGANA LETTER SO
 zo     305e    HIRAGANA LETTER ZO
 ta     305f    HIRAGANA LETTER TA
 da     3060    HIRAGANA LETTER DA
 ti     3061    HIRAGANA LETTER TI
 di     3062    HIRAGANA LETTER DI
 tU     3063    HIRAGANA LETTER SMALL TU
 tu     3064    HIRAGANA LETTER TU
 du     3065    HIRAGANA LETTER DU
 te     3066    HIRAGANA LETTER TE
 de     3067    HIRAGANA LETTER DE
 to     3068    HIRAGANA LETTER TO
 do     3069    HIRAGANA LETTER DO
 na     306a    HIRAGANA LETTER NA
 ni     306b    HIRAGANA LETTER NI
 nu     306c    HIRAGANA LETTER NU
 ne     306d    HIRAGANA LETTER NE
 no     306e    HIRAGANA LETTER NO
 ha     306f    HIRAGANA LETTER HA
 ba     3070    HIRAGANA LETTER BA
 pa     3071    HIRAGANA LETTER PA
 hi     3072    HIRAGANA LETTER HI
 bi     3073    HIRAGANA LETTER BI
 pi     3074    HIRAGANA LETTER PI
 hu     3075    HIRAGANA LETTER HU
 bu     3076    HIRAGANA LETTER BU
 pu     3077    HIRAGANA LETTER PU
 he     3078    HIRAGANA LETTER HE
 be     3079    HIRAGANA LETTER BE
 pe     307a    HIRAGANA LETTER PE
 ho     307b    HIRAGANA LETTER HO
 bo     307c    HIRAGANA LETTER BO
 po     307d    HIRAGANA LETTER PO
 ma     307e    HIRAGANA LETTER MA
 mi     307f    HIRAGANA LETTER MI
 mu     3080    HIRAGANA LETTER MU
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me	3081	HIRAGANA LETTER ME
mo	3082	HIRAGANA LETTER MO
yA	3083	HIRAGANA LETTER SMALL YA
ya	3084	HIRAGANA LETTER YA
yU	3085	HIRAGANA LETTER SMALL YU
yu	3086	HIRAGANA LETTER YU
yO	3087	HIRAGANA LETTER SMALL YO
yo	3088	HIRAGANA LETTER YO
ra	3089	HIRAGANA LETTER RA
ri	308a	HIRAGANA LETTER RI
ru	308b	HIRAGANA LETTER RU
re	308c	HIRAGANA LETTER RE
ro	308d	HIRAGANA LETTER RO
wA	308e	HIRAGANA LETTER SMALL WA
wa	308f	HIRAGANA LETTER WA
wi	3090	HIRAGANA LETTER WI
we	3091	HIRAGANA LETTER WE
wo	3092	HIRAGANA LETTER WO
n5	3093	HIRAGANA LETTER N
vu	3094	HIRAGANA LETTER VU
"5	309b	KATAKANA-HIRAGANA VOICED SOUND MARK
05	309c	KATAKANA-HIRAGANA SEMI-VOICED SOUND MARK
*5	309d	HIRAGANA ITERATION MARK
+5	309e	HIRAGANA VOICED ITERATION MARK
a6	30a1	KATAKANA LETTER SMALL A
A6	30a2	KATAKANA LETTER A
i6	30a3	KATAKANA LETTER SMALL I
I6	30a4	KATAKANA LETTER I
u6	30a5	KATAKANA LETTER SMALL U
U6	30a6	KATAKANA LETTER U
e6	30a7	KATAKANA LETTER SMALL E
E6	30a8	KATAKANA LETTER E
o6	30a9	KATAKANA LETTER SMALL O
O6	30aa	KATAKANA LETTER O
Ka	30ab	KATAKANA LETTER KA
Ga	30ac	KATAKANA LETTER GA
Ki	30ad	KATAKANA LETTER KI
Gi	30ae	KATAKANA LETTER GI
Ku	30af	KATAKANA LETTER KU
Gu	30b0	KATAKANA LETTER GU
Ke	30b1	KATAKANA LETTER KE
Ge	30b2	KATAKANA LETTER GE
Ko	30b3	KATAKANA LETTER KO
Go	30b4	KATAKANA LETTER GO
Sa	30b5	KATAKANA LETTER SA
Za	30b6	KATAKANA LETTER ZA
Si	30b7	KATAKANA LETTER SI
Zi	30b8	KATAKANA LETTER ZI
Su	30b9	KATAKANA LETTER SU
Zu	30ba	KATAKANA LETTER ZU
Se	30bb	KATAKANA LETTER SE
Ze	30bc	KATAKANA LETTER ZE
So	30bd	KATAKANA LETTER SO

Zo	30be	KATAKANA LETTER ZO
Ta	30bf	KATAKANA LETTER TA
Da	30c0	KATAKANA LETTER DA
Ti	30c1	KATAKANA LETTER TI
Di	30c2	KATAKANA LETTER DI
TU	30c3	KATAKANA LETTER SMALL TU
Tu	30c4	KATAKANA LETTER TU
Du	30c5	KATAKANA LETTER DU
Te	30c6	KATAKANA LETTER TE
De	30c7	KATAKANA LETTER DE
To	30c8	KATAKANA LETTER TO
Do	30c9	KATAKANA LETTER DO
Na	30ca	KATAKANA LETTER NA
Ni	30cb	KATAKANA LETTER NI
Nu	30cc	KATAKANA LETTER NU
Ne	30cd	KATAKANA LETTER NE
No	30ce	KATAKANA LETTER NO
Ha	30cf	KATAKANA LETTER HA
Ba	30d0	KATAKANA LETTER BA
Pa	30d1	KATAKANA LETTER PA
Hi	30d2	KATAKANA LETTER HI
Bi	30d3	KATAKANA LETTER BI
Pi	30d4	KATAKANA LETTER PI
Hu	30d5	KATAKANA LETTER HU
Bu	30d6	KATAKANA LETTER BU
Pu	30d7	KATAKANA LETTER PU
He	30d8	KATAKANA LETTER HE
Be	30d9	KATAKANA LETTER BE
Pe	30da	KATAKANA LETTER PE
Ho	30db	KATAKANA LETTER HO
Bo	30dc	KATAKANA LETTER BO
Po	30dd	KATAKANA LETTER PO
Ma	30de	KATAKANA LETTER MA
Mi	30df	KATAKANA LETTER MI
Mu	30e0	KATAKANA LETTER MU
Me	30e1	KATAKANA LETTER ME
Mo	30e2	KATAKANA LETTER MO
YA	30e3	KATAKANA LETTER SMALL YA
Ya	30e4	KATAKANA LETTER YA
YU	30e5	KATAKANA LETTER SMALL YU
Yu	30e6	KATAKANA LETTER YU
YO	30e7	KATAKANA LETTER SMALL YO
Yo	30e8	KATAKANA LETTER YO
Ra	30e9	KATAKANA LETTER RA
Ri	30ea	KATAKANA LETTER RI
Ru	30eb	KATAKANA LETTER RU
Re	30ec	KATAKANA LETTER RE
Ro	30ed	KATAKANA LETTER RO
WA	30ee	KATAKANA LETTER SMALL WA
Wa	30ef	KATAKANA LETTER WA
Wi	30f0	KATAKANA LETTER WI
We	30f1	KATAKANA LETTER WE
Wo	30f2	KATAKANA LETTER WO

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 N6     30f3    KATAKANA LETTER N
 Vu     30f4    KATAKANA LETTER VU
 KA     30f5    KATAKANA LETTER SMALL KA
 KE     30f6    KATAKANA LETTER SMALL KE
 Va     30f7    KATAKANA LETTER VA
 Vi     30f8    KATAKANA LETTER VI
 Ve     30f9    KATAKANA LETTER VE
 Vo     30fa    KATAKANA LETTER VO
 .6     30fb    KATAKANA MIDDLE DOT
 -6     30fc    KATAKANA-HIRAGANA PROLONGED SOUND MARK
 *6     30fd    KATAKANA ITERATION MARK
 +6     30fe    KATAKANA VOICED ITERATION MARK
 b4     3105    BOPOMOFO LETTER B
 p4     3106    BOPOMOFO LETTER P
 m4     3107    BOPOMOFO LETTER M
 f4     3108    BOPOMOFO LETTER F
 d4     3109    BOPOMOFO LETTER D
 t4     310a    BOPOMOFO LETTER T
 n4     310b    BOPOMOFO LETTER N
 l4     310c    BOPOMOFO LETTER L
 g4     310d    BOPOMOFO LETTER G
 k4     310e    BOPOMOFO LETTER K
 h4     310f    BOPOMOFO LETTER H
 j4     3110    BOPOMOFO LETTER J
 q4     3111    BOPOMOFO LETTER Q
 x4     3112    BOPOMOFO LETTER X
 zh     3113    BOPOMOFO LETTER ZH
 ch     3114    BOPOMOFO LETTER CH
 sh     3115    BOPOMOFO LETTER SH
 r4     3116    BOPOMOFO LETTER R
 z4     3117    BOPOMOFO LETTER Z
 c4     3118    BOPOMOFO LETTER C
 s4     3119    BOPOMOFO LETTER S
 a4     311a    BOPOMOFO LETTER A
 o4     311b    BOPOMOFO LETTER O
 e4     311c    BOPOMOFO LETTER E
 eh4    311d    BOPOMOFO LETTER EH
 ai     311e    BOPOMOFO LETTER AI
 ei     311f    BOPOMOFO LETTER EI
 au     3120    BOPOMOFO LETTER AU
 ou     3121    BOPOMOFO LETTER OU
 an     3122    BOPOMOFO LETTER AN
 en     3123    BOPOMOFO LETTER EN
 aN     3124    BOPOMOFO LETTER ANG
 eN     3125    BOPOMOFO LETTER ENG
 er     3126    BOPOMOFO LETTER ER
 i4     3127    BOPOMOFO LETTER I
 u4     3128    BOPOMOFO LETTER U
 iu     3129    BOPOMOFO LETTER IU
 v4     312a    BOPOMOFO LETTER V
 nG     312b    BOPOMOFO LETTER NG
 gn     312c    BOPOMOFO LETTER GN
 (JU)   321c    PARENTHESIZED HANGUL JU
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1c	3220	PARENTHESIZED IDEOGRAPH ONE
2c	3221	PARENTHESIZED IDEOGRAPH TWO
3c	3222	PARENTHESIZED IDEOGRAPH THREE
4c	3223	PARENTHESIZED IDEOGRAPH FOUR
5c	3224	PARENTHESIZED IDEOGRAPH FIVE
6c	3225	PARENTHESIZED IDEOGRAPH SIX
7c	3226	PARENTHESIZED IDEOGRAPH SEVEN
8c	3227	PARENTHESIZED IDEOGRAPH EIGHT
9c	3228	PARENTHESIZED IDEOGRAPH NINE
10c	3229	PARENTHESIZED IDEOGRAPH TEN
KSC	327f	KOREAN STANDARD SYMBOL
ff	fb00	LATIN SMALL LIGATURE FF
fi	fb01	LATIN SMALL LIGATURE FI
fl	fb02	LATIN SMALL LIGATURE FL
ffi	fb03	LATIN SMALL LIGATURE FFI
ffl	fb04	LATIN SMALL LIGATURE FFL
ft	fb05	LATIN SMALL LIGATURE FT
st	fb06	LATIN SMALL LIGATURE ST
3+;	fe7d	ARABIC SHADDA MEDIAL FORM
aM.	fe82	ARABIC LETTER ALEF WITH MADDA ABOVE FINAL FORM
aH.	fe84	ARABIC LETTER ALEF WITH HAMZA ABOVE FINAL FORM
a+-	fe8d	ARABIC LETTER ALEF ISOLATED FORM
a+.	fe8e	ARABIC LETTER ALEF FINAL FORM
b+-	fe8f	ARABIC LETTER BEH ISOLATED FORM
b+,	fe90	ARABIC LETTER BEH INITIAL FORM
b+;	fe91	ARABIC LETTER BEH MEDIAL FORM
b+.	fe92	ARABIC LETTER BEH FINAL FORM
tm-	fe93	ARABIC LETTER TEH MARBUTA ISOLATED FORM
tm.	fe94	ARABIC LETTER TEH MARBUTA FINAL FORM
t+-	fe95	ARABIC LETTER TEH ISOLATED FORM
t+,	fe96	ARABIC LETTER TEH INITIAL FORM
t+;	fe97	ARABIC LETTER TEH MEDIAL FORM
t+.	fe98	ARABIC LETTER TEH FINAL FORM
tk-	fe99	ARABIC LETTER THEH ISOLATED FORM
tk,	fe9a	ARABIC LETTER THEH INITIAL FORM
tk;	fe9b	ARABIC LETTER THEH MEDIAL FORM
tk.	fe9c	ARABIC LETTER THEH FINAL FORM
g+-	fe9d	ARABIC LETTER JEEM ISOLATED FORM
g+,	fe9e	ARABIC LETTER JEEM INITIAL FORM
g+;	fe9f	ARABIC LETTER JEEM MEDIAL FORM
g+.	fea0	ARABIC LETTER JEEM FINAL FORM
hk-	fea1	ARABIC LETTER HAH ISOLATED FORM
hk,	fea2	ARABIC LETTER HAH INITIAL FORM
hk;	fea3	ARABIC LETTER HAH MEDIAL FORM
hk.	fea4	ARABIC LETTER HAH FINAL FORM
x+-	fea5	ARABIC LETTER KHAH ISOLATED FORM
x+,	fea6	ARABIC LETTER KHAH INITIAL FORM
x+;	fea7	ARABIC LETTER KHAH MEDIAL FORM
x+.	fea8	ARABIC LETTER KHAH FINAL FORM
d+-	fea9	ARABIC LETTER DAL ISOLATED FORM
d+.	feaa	ARABIC LETTER DAL FINAL FORM
dk-	feab	ARABIC LETTER THAL ISOLATED FORM
dk.	feac	ARABIC LETTER THAL FINAL FORM

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 r+-    fead    ARABIC LETTER REH ISOLATED FORM
 r+.    feae    ARABIC LETTER REH FINAL FORM
 z+-    feaf    ARABIC LETTER ZAIN ISOLATED FORM
 z+.    feb0    ARABIC LETTER ZAIN FINAL FORM
 s+-    feb1    ARABIC LETTER SEEN ISOLATED FORM
 s+,    feb2    ARABIC LETTER SEEN INITIAL FORM
 s+;    feb3    ARABIC LETTER SEEN MEDIAL FORM
 s+.    feb4    ARABIC LETTER SEEN FINAL FORM
 sn-    feb5    ARABIC LETTER SHEEN ISOLATED FORM
 sn,    feb6    ARABIC LETTER SHEEN INITIAL FORM
 sn;    feb7    ARABIC LETTER SHEEN MEDIAL FORM
 sn.    feb8    ARABIC LETTER SHEEN FINAL FORM
 c+-    feb9    ARABIC LETTER SAD ISOLATED FORM
 c+,    feba    ARABIC LETTER SAD INITIAL FORM
 c+;    febb    ARABIC LETTER SAD MEDIAL FORM
 c+.    febc    ARABIC LETTER SAD FINAL FORM
 dd-    febd    ARABIC LETTER DAD ISOLATED FORM
 dd,    febe    ARABIC LETTER DAD INITIAL FORM
 dd;    febf    ARABIC LETTER DAD MEDIAL FORM
 dd.    fec0    ARABIC LETTER DAD FINAL FORM
 tj-    fec1    ARABIC LETTER TAH ISOLATED FORM
 tj,    fec2    ARABIC LETTER TAH INITIAL FORM
 tj;    fec3    ARABIC LETTER TAH MEDIAL FORM
 tj.    fec4    ARABIC LETTER TAH FINAL FORM
 zH-    fec5    ARABIC LETTER ZAH ISOLATED FORM
 zH,    fec6    ARABIC LETTER ZAH INITIAL FORM
 zH;    fec7    ARABIC LETTER ZAH MEDIAL FORM
 zH.    fec8    ARABIC LETTER ZAH FINAL FORM
 e+-    fec9    ARABIC LETTER AIN ISOLATED FORM
 e+,    feca    ARABIC LETTER AIN INITIAL FORM
 e+;    fecb    ARABIC LETTER AIN MEDIAL FORM
 e+.    fecc    ARABIC LETTER AIN FINAL FORM
 i+-    fecd    ARABIC LETTER GHAIN ISOLATED FORM
 i+,    fece    ARABIC LETTER GHAIN INITIAL FORM
 i+;    fecf    ARABIC LETTER GHAIN MEDIAL FORM
 i+.    fed0    ARABIC LETTER GHAIN FINAL FORM
 f+-    fed1    ARABIC LETTER FEH ISOLATED FORM
 f+,    fed2    ARABIC LETTER FEH INITIAL FORM
 f+;    fed3    ARABIC LETTER FEH MEDIAL FORM
 f+.    fed4    ARABIC LETTER FEH FINAL FORM
 q+-    fed5    ARABIC LETTER QAF ISOLATED FORM
 q+,    fed6    ARABIC LETTER QAF INITIAL FORM
 q+;    fed7    ARABIC LETTER QAF MEDIAL FORM
 q+.    fed8    ARABIC LETTER QAF FINAL FORM
 k+-    fed9    ARABIC LETTER KAF ISOLATED FORM
 k+,    feda    ARABIC LETTER KAF INITIAL FORM
 k+;    fedb    ARABIC LETTER KAF MEDIAL FORM
 k+.    fedc    ARABIC LETTER KAF FINAL FORM
 l+-    fedd    ARABIC LETTER LAM ISOLATED FORM
 l+,    fede    ARABIC LETTER LAM INITIAL FORM
 l+;    fedf    ARABIC LETTER LAM MEDIAL FORM
 l+.    fee0    ARABIC LETTER LAM FINAL FORM
 m+-    fee1    ARABIC LETTER MEEM ISOLATED FORM
```

```
 m+,     fee2    ARABIC LETTER MEEM INITIAL FORM
 m+;     fee3    ARABIC LETTER MEEM MEDIAL FORM
 m+.     fee4    ARABIC LETTER MEEM FINAL FORM
 n+-     fee5    ARABIC LETTER NOON ISOLATED FORM
 n+,     fee6    ARABIC LETTER NOON INITIAL FORM
 n+;     fee7    ARABIC LETTER NOON MEDIAL FORM
 n+.     fee8    ARABIC LETTER NOON FINAL FORM
 h+-     fee9    ARABIC LETTER HEH ISOLATED FORM
 h+,     feea    ARABIC LETTER HEH INITIAL FORM
 h+;     feeb    ARABIC LETTER HEH MEDIAL FORM
 h+.     feec    ARABIC LETTER HEH FINAL FORM
 w+-     feed    ARABIC LETTER WAW ISOLATED FORM
 w+.     feee    ARABIC LETTER WAW FINAL FORM
 j+-     feef    ARABIC LETTER ALEF MAKSURA ISOLATED FORM
 j+.     fef0    ARABIC LETTER ALEF MAKSURA FINAL FORM
 y+-     fef1    ARABIC LETTER YEH ISOLATED FORM
 y+,     fef2    ARABIC LETTER YEH INITIAL FORM
 y+;     fef3    ARABIC LETTER YEH MEDIAL FORM
 y+.     fef4    ARABIC LETTER YEH FINAL FORM
 lM-     fef5    ARABIC LIGATURE LAM WITH ALEF WITH MADDA ABOVE
                 ISOLATED FORM
 lM.     fef6    ARABIC LIGATURE LAM WITH ALEF WITH MADDA ABOVE
                 FINAL FORM
 lH-     fef7    ARABIC LIGATURE LAM WITH ALEF WITH HAMZA ABOVE
                 ISOLATED FORM
 lH.     fef8    ARABIC LIGATURE LAM WITH ALEF WITH HAMZA ABOVE
                 FINAL FORM
 lh-     fef9    ARABIC LIGATURE LAM WITH ALEF WITH HAMZA BELOW
                 ISOLATED FORM
 lh.     fefa    ARABIC LIGATURE LAM WITH ALEF WITH HAMZA BELOW
                 FINAL FORM
 la-     fefb    ARABIC LIGATURE LAM WITH ALEF ISOLATED FORM
 la.     fefc    ARABIC LIGATURE LAM WITH ALEF FINAL FORM
 NU      0000    NULL (NUL)
 SH      0001    START OF HEADING (SOH)
 SX      0002    START OF TEXT (STX)
 EX      0003    END OF TEXT (ETX)
 ET      0004    END OF TRANSMISSION (EOT)
 EQ      0005    ENQUIRY (ENQ)
 AK      0006    ACKNOWLEDGE (ACK)
 BL      0007    BELL (BEL)
 BS      0008    BACKSPACE (BS)
 HT      0009    CHARACTER TABULATION (HT)
 LF      000a    LINE FEED (LF)
 VT      000b    LINE TABULATION (VT)
 FF      000c    FORM FEED (FF)
 CR      000d    CARRIAGE RETURN (CR)
 SO      000e    SHIFT OUT (SO)
 SI      000f    SHIFT IN (SI)
 DL      0010    DATALINK ESCAPE (DLE)
 D1      0011    DEVICE CONTROL ONE (DC1)
 D2      0012    DEVICE CONTROL TWO (DC2)
 D3      0013    DEVICE CONTROL THREE (DC3)
```

```
 D4     0014    DEVICE CONTROL FOUR (DC4)
 NK     0015    NEGATIVE ACKNOWLEDGE (NAK)
 SY     0016    SYNCRONOUS IDLE (SYN)
 EB     0017    END OF TRANSMISSION BLOCK (ETB)
 CN     0018    CANCEL (CAN)
 EM     0019    END OF MEDIUM (EM)
 SB     001a    SUBSTITUTE (SUB)
 EC     001b    ESCAPE (ESC)
 FS     001c    FILE SEPARATOR (IS4)
 GS     001d    GROUP SEPARATOR (IS3)
 RS     001e    RECORD SEPARATOR (IS2)
 US     001f    UNIT SEPARATOR (IS1)
 DT     007f    DELETE (DEL)
 PA     0080    PADDING CHARACTER (PAD)
 HO     0081    HIGH OCTET PRESET (HOP)
 BH     0082    BREAK PERMITTED HERE (BPH)
 NH     0083    NO BREAK HERE (NBH)
 IN     0084    INDEX (IND)
 NL     0085    NEXT LINE (NEL)
 SA     0086    START OF SELECTED AREA (SSA)
 ES     0087    END OF SELECTED AREA (ESA)
 HS     0088    CHARACTER TABULATION SET (HTS)
 HJ     0089    CHARACTER TABULATION WITH JUSTIFICATION (HTJ)
 VS     008a    LINE TABULATION SET (VTS)
 PD     008b    PARTIAL LINE FORWARD (PLD)
 PU     008c    PARTIAL LINE BACKWARD (PLU)
 RI     008d    REVERSE LINE FEED (RI)
 S2     008e    SINGLE-SHIFT TWO (SS2)
 S3     008f    SINGLE-SHIFT THREE (SS3)
 DC     0090    DEVICE CONTROL STRING (DCS)
 P1     0091    PRIVATE USE ONE (PU1)
 P2     0092    PRIVATE USE TWO (PU2)
 TS     0093    SET TRANSMIT STATE (STS)
 CC     0094    CANCEL CHARACTER (CCH)
 MW     0095    MESSAGE WAITING (MW)
 SG     0096    START OF GUARDED AREA (SPA)
 EG     0097    END OF GUARDED AREA (EPA)
 SS     0098    START OF STRING (SOS)
 GC     0099    SINGLE GRAPHIC CHARACTER INTRODUCER (SGCI)
 SC     009a    SINGLE CHARACTER INTRODUCER (SCI)
 CI     009b    CONTROL SEQUENCE INTRODUCER (CSI)
 ST     009c    STRING TERMINATOR (ST)
 OC     009d    OPERATING SYSTEM COMMAND (OSC)
 PM     009e    PRIVACY MESSAGE (PM)
 AC     009f    APPLICATION PROGRAM COMMAND (APC)
        e000    indicates unfinished (Mnemonic)
 /c     e001    JOIN THIS LINE WITH NEXT LINE (Mnemonic)
 UA     e002    Unit space A (ISO-IR-8-1 064)
 UB     e003    Unit space B (ISO-IR-8-1 096)
 "3     e004    NON-SPACING UMLAUT (ISO-IR-38 201) (character part)
 "1     e005    NON-SPACING DIAERESIS WITH ACCENT (ISO-IR-70 192)
                (character part)
 "!     e006    NON-SPACING GRAVE ACCENT (ISO-IR-103 193) (character
```

		part)
"'	e007	NON-SPACING ACUTE ACCENT (ISO-IR-103 194) (character part)
">	e008	NON-SPACING CIRCUMFLEX ACCENT (ISO-IR-103 195) (character part)
"?	e009	NON-SPACING TILDE (ISO-IR-103 196) (character part)
"-	e00a	NON-SPACING MACRON (ISO-IR-103 197) (character part)
"(	e00b	NON-SPACING BREVE (ISO-IR-103 198) (character part)
".	e00c	NON-SPACING DOT ABOVE (ISO-IR-103 199) (character part)
":	e00d	NON-SPACING DIAERESIS (ISO-IR-103 200) (character part)
"0	e00e	NON-SPACING RING ABOVE (ISO-IR-103 202) (character part)
""	e00f	NON-SPACING DOUBLE ACCUTE (ISO-IR-103 204) (character part)
"<	e010	NON-SPACING CARON (ISO-IR-103 206) (character part)
",	e011	NON-SPACING CEDILLA (ISO-IR-103 203) (character part)
";	e012	NON-SPACING OGONEK (ISO-IR-103 206) (character part)
"_	e013	NON-SPACING LOW LINE (ISO-IR-103 204) (character part)
"=	e014	NON-SPACING DOUBLE LOW LINE (ISO-IR-38 217) (character part)
"/	e015	NON-SPACING LONG SOLIDUS (ISO-IR-128 201) (character part)
"i	e016	GREEK NON-SPACING IOTA BELOW (ISO-IR-55 39) (character part)
"d	e017	GREEK NON-SPACING DASIA PNEUMATA (ISO-IR-55 38) (character part)
"p	e018	GREEK NON-SPACING PSILI PNEUMATA (ISO-IR-55 37) (character part)
;;	e019	GREEK DASIA PNEUMATA (ISO-IR-18 92)
,,	e01a	GREEK PSILI PNEUMATA (ISO-IR-18 124)
b3	e01b	GREEK SMALL LETTER MIDDLE BETA (ISO-IR-18 99)
Ci	e01c	CIRCLE (ISO-IR-83 0294)
f(	e01d	FUNCTION SIGN (ISO-IR-143 221)
ed	e01e	LATIN SMALL LETTER EZH (ISO-IR-158 142)
am	e01f	ANTE MERIDIAM SIGN (ISO-IR-149 0267)
pm	e020	POST MERIDIAM SIGN (ISO-IR-149 0268)
Tel	e021	TEL COMPATIBILITY SIGN (ISO-IR-149 0269)
a+:	e022	ARABIC LETTER ALEF FINAL FORM COMPATIBILITY (IBM868 144)
Fl	e023	DUTCH GUILDER SIGN (IBM437 159)
GF	e024	GAMMA FUNCTION SIGN (ISO-10646-1DIS 032/032/037/122)
>V	e025	RIGHTWARDS VECTOR ABOVE (ISO-10646-1DIS 032/032/038/046)
!*	e026	GREEK VARIA (ISO-10646-1DIS 032/032/042/164)
?*	e027	GREEK PERISPOMENI (ISO-10646-1DIS 032/032/042/165)
J<	e028	LATIN CAPITAL LETTER J WITH CARON (lowercase: 000/000/001/240)

4. CHARSETS

The character mnemonics hav been used to table a number of coded character sets. The coded character set names are taken if possible from the official ISO registration description in the ISO 2375 (ECMA) register, or with a number like the code page number - or with an indication of the language or country it is being used for - using

the country designators of ISO 3166. For the character sets in the ECMA register, their ISO registration number is also given (as ISO-IR-xxx). Often the ISO registration number does not cover all the codes of a character set in use, but for instance only the graphical characters, where another ISO registration number covers the control characters; in the case of the 8-bit character sets the ISO registration only covers the upper graphical characters (GR). The ISO registration number is here taken to indicate the full coded character set including control characters and lower half of the graphical characters, normally ISO 6429 and ASCII, respectively.

The ISO definition of the term "coded character set" is as follows: "A set of unambiguous rules that establishes a character set and the one-to-one relationship between the characters of the set and their coded representation." and this definition may be subject to different interpretations. This memo does not put further restrictions on the term of "coded character set" than the following: "A coded character set is a set of rules that unambiguously and completely determines which sequence of characters, if any, is represented by each possible sequence of n-bit bytes for a certain value of n." This implies that e.g. a coded character set extended with one or more other coded character sets by means of the extension techniques of ISO 2022 constitutes a coded character set in its own right. In this memo the term "charset" is used to refer to the above interpretation of the ISO term "coded character set".

A special problem is, if two characters of two different coded character sets with the same descriptive name, or depicted by what looks like the same graphic symbol, or with the same historical origin, really are to be regarded as the same character or not. This problem has been studied in great detail in the development efforts that have resulted in ISO DIS 10646 and Unicode (under the heading "character unification"). As much as possible such results have been used in the construction of the code tables of this section.

4.1 Charset Naming

The coded character set names are given in ISO 646 invariant subset (83 characters, where a space in the name is replaced with an underline character; sometimes a hyphen is also used instead of a blank, or the blank is eliminated when practice exist). Case is not significant in the charset names.

4.2 Code Table Format

The following code tables are given in a simple format to facilitate use of this text as program input. Programs and routines written in C to handle these tables are freely available from the author of this memo. Keywords are signified with the character "&" as the first character, to distinguish them from ordinary data. Numbers may be given in decimal, hexadecimal or octal notation; hexadecimal numbers are given with an "x" as the first character, and octal numbers has an "o" as the first character.

The following keywords are used:

"&charset" has one parameter defining the name of the character set. This is required for every character set.

"&alias" has one parameter defining a possible alternate name for the character set. This is optional.

"&g0esc", "&g1esc", "&g2esc", "&g3esc", "&c0esc", "&c1esc" has one parameter indicating the string of octets used to define the character set as the G0, G1, G2, G3, C0 or C1 set respectively, according to ISO 2022 (11). The string is to be preceded by an ESC character. It is only the relevant parts of the table, which can be used with the definition; the charset is often coded with both graphical and control character sets. If the coded character set is a 96-character set, it is tabled with the relevant GL set (normally ISO-IR-6) and with ISO 6429 as C0 and C1 (12). If it is a 94-character set, it is tabled with the C0 set of ISO 6429. If it is a double-octet coded character set, it is tabled without control character sets and accompanying one-octet coded character sets, and the two-octet code is tabled as a G0 set.

"&bits" has one parameter indicating the number of bits to represent the charset. This is optional and 8 bits is the default.

"&code" has one parameter indicating the byte number allocated to the following character mnemonic. After the "&code" specification the characters are listed with their mnemonic in ascending order. A character mnemonic of "??" indicates that the position is unused. A character mnemonic of "__" indicates that the character set is not completely defined with the specifications in this memo.

"&code2" has 2 parameters specifying the row and column in certain 16-bit character sets. The value 32 must be added to obtain the first and second byte respectively. Mnemonics can be specified after the "&code2" specification as mentioned for the "&code" specification.

"&codex" has 5 parameters, specifying the character set prefix string, the start row number, the end row number, the start column number and the end column number respectively. This is equivalent to specifying a series of mnemonics of the form "nrrcc" where "n" is the character set name prefix string, "rr" is the row number running from the specified start row number to the end row number, and "cc" is the column number running from the specified start column number to the end column number. The thereby created series mnemonics are allocated to code positions which are added 32 to the row and column numbers to get the row and column octet.

"&duplicate" has a special meaning indicating that a position is being used for more than one character. This is an ugly convention but it is a sad fact of life that same code in one coded character set can mean different characters. "&duplicate" takes two parameters

- the first is the code to be duplicated, the other is the new mnemonic.

"&rem" is followed by text to explain something in the table to a human reader. All lines in such a remark has to start with this keyword.

"&comb2" specifies a combination of two characters which signifies a third character. All characters in the specification are given by their mnemonic. The two combining characters must be specified previously in the code table. The first combining character is specified as the first character after the keyword, and then the following pairs of characters are the second combining character and the result, respectively. The specification can be repeated, terminated by an occurrence of a keyword.

4.3 Mnemonic charsets

The following is compatible with current practice on the internet within EUnet - the European not-for-profit networking organisation in Europe and North Africa currently operating in 24 countries.

The mnemonic charsets are a family of charsets which have the facility that within the relevant parts of the message, encoded in an ordinary coded character set, text may have occurrences of the following sequence: an intro character sequence, followed by a string of characters that represent a character mnemonic, as described below. Similarly, the intro character sequence may be doubled, indicating a single occurrence of the respective symbols in decoded format.

Note that many characters within a mnemonic character set may be represented in two different ways. Normally the character itself is used, but it is also possible to use the mnemonic allocated to the character in a mnemonic sequence.

In this way all characters with assigned mnemonics can be represented without information loss in any character set, which contains the invariant ISO 646 characters as a subset. As a consequence, using a mnemonic character set all these characters can be generated uniformly on all keyboards and presented uniformly on all terminal equipment, whenever the real character is not available.

Data encoded in a mnemonic charset is intended to be read by the end user possibly without further treatment. If the transport encoding and the presentation encoding for the user differ, it is recommended that the data be translated into a mnemonic representation in the presentation encoding.

A mnemonic charset is specified with the name "mnemonic+charset+intro" where "mnemonic" is written as given and "charset" and "intro" is specified as described below. The mnemonic charset "mnemonic" is a shorthand for "mnemonic+ascii+38". The

mnemonic charset "mnem" is a shorthand for "mnemonic+ascii+8200".

It is discouraged to use mnemonics for Chinese characters of either Chinese, Japanese or Korean origin, as the probability that the end user equipment can deal with the original encoding is very high for the intended receiver, and the mnemonics for such Chinese characters described in this memo convey very little meaning to humans.

4.3.1 charset

The charset is given as one of the charset names in this memo and is the encoding used for the transport. It cannot be a mnemonic charset.

4.3.2 Intro

The intro character sequence is given as the decimal value of the intro characters in the transport character set. There may be up to two characters used in the intro character sequence, and the decimal value for two-character intro sequences are then the first character value multiplied with 256 to the power of the number of octets used in the character set, plus the second character value. The recommended value is 38 for the ampersand (&) character in ASCII. Another common value is 29 for the control character "Group Separator", or 8200 for "space" followed by "backspace", which may be convenient when operating in some environments, and ordinary text is not changed. Only the ampersand character may be chosen as intro from the invariant ISO 646 charset, but any character not in the invariant ISO 646 character can be used as intro. The intro character sequence is used for introducing character mnemonics when a character is not present in the mail transport character set (as defined by "charset"). Character mnemonics longer than two characters are surrounded by the underline character. The intro character sequence is doubled to represent one occurrence of itself. Characters in the mail transport character set are normally just represented with their encoding, but may also be represented by the intro character sequence and the mnemonic encoding.

If the intro character sequence is specified as 0 (zero), it is omitted in the transport, giving a better readably content, but eliminating the possibility of reversibility and introducing an information loss. With intro specified as 0, also underline characters surrounding mnemonics longer than 2 characters are removed. Mnemonic charsets with the intro specified as zero is equivalent to the ordinary charset, e.g. "mnemonic+ascii+0" is equivalent to "ascii".

The intro character can be given in a header "Mnemonic-Intro:" with the value given in decimal as noted above in the first parameter. This has only meaning if the charset can be deducted by other information as specified by the relevant Internet specification. This information has precedence over other information on the intro.

4.3.3 Compatibility

If applications conforming to this memo interoperate with other versions of this memo, and encounter mnemonics that are undefined with this memo, they shall leave the mnemonic as it is coded. This provides for upward compatibility.

4.3.4 Conversion Between Mnemonic Charsets

To determine which mnemonic charsets are permitted with the use of an Internet specification, please refer to that specification. It may be that only "ASCII" or "INVARIANT" is allowed as the base charset. ASCII is the most used character set, while INVARIANT will be very robust for traversing gateways, but it will cause trouble for (amongst other things) source code for several programming languages. The use of other character sets may be limited to agreement between the communicating parties. When such an agreement has been achieved, a conversion between different mnemonic charsets can be done according to the charset tables below, as characters occurring in both encodings are just transformed, and characters not existing in the receiving coded character set are represented by the intro character sequence of the receiving coded character set plus the character mnemonic, as described for the intro character sequence. The characters forming the mnemonic are translated into the receiving code, which must have these characters present. An undefined character in the originating coded character set is transformed into the following sequence: the intro character sequence, an underline, a question mark character, a "u" (for undefined) and then the hexadecimal value of the character with letters in lowercase (possibly more than one byte for multibyte character sets) and then a terminating underline character. Headers may need to be changed accordingly to reflect such conversion. The character mnemonic "/c" has a special meaning in specifying that a line is to be continued even if the next characters are specifying a new line.

5. CHARSET TABLES

```
&charset ISO_646.basic:1983
&rem source: ECMA registry
&alias ref
&code 32
SP ! " ?? ?? % & ' ( ) * + , - . / 0 1 2 3 4 5 6 7 8 9 : ; < = > ?
?? A B C D E F G H I J K L M N O P Q R S T U V W X Y Z ?? ?? ?? ?? _
?? a b c d e f g h i j k l m n o p q r s t u v w x y z

&charset INVARIANT
&code 0
NU SH SX EX ET EQ AK BL BS HT LF VT FF CR SO SI
DL D1 D2 D3 D4 NK SY EB CN EM SB EC FS GS RS US
SP ! " ?? ?? % & ' ( ) * + , - . / 0 1 2 3 4 5 6 7 8 9 : ; < = > ?
?? A B C D E F G H I J K L M N O P Q R S T U V W X Y Z ?? ?? ?? ?? _
?? a b c d e f g h i j k l m n o p q r s t u v w x y z ?? ?? ?? ?? DT
```

```
&charset ISO_646.irv:1983
&rem source: ECMA registry
&alias iso-ir-2
&alias irv
&g0esc x2840 &g1esc x2940 &g2esc x2a40 &g3esc x2b40
&code 0
NU SH SX EX ET EQ AK BL BS HT LF VT FF CR SO SI
DL D1 D2 D3 D4 NK SY EB CN EM SB EC FS GS RS US
SP ! " Nb Cu % & ’ ( ) * + , - . / 0 1 2 3 4 5 6 7 8 9 : ; < = > ?
At A B C D E F G H I J K L M N O P Q R S T U V W X Y Z <( // )> ’> _
’! a b c d e f g h i j k l m n o p q r s t u v w x y z (! !! !) ’- DT

&charset BS_4730
&rem source: ECMA registry
&alias iso-ir-4
&alias ISO646-GB
&g0esc x2841 &g1esc x2941 &g2esc x2a41 &g3esc x2b41
&alias gb
&alias uk
&code 0
NU SH SX EX ET EQ AK BL BS HT LF VT FF CR SO SI
DL D1 D2 D3 D4 NK SY EB CN EM SB EC FS GS RS US
SP ! " Pd DO % & ’ ( ) * + , - . / 0 1 2 3 4 5 6 7 8 9 : ; < = > ?
At A B C D E F G H I J K L M N O P Q R S T U V W X Y Z <( // )> ’> _
’! a b c d e f g h i j k l m n o p q r s t u v w x y z (! !! !) ’- DT

&charset ANSI_X3.4-1968
&rem source: ECMA registry
&alias iso-ir-6
&alias ANSI_X3.4-1986
&alias ISO_646.irv:1991
&g0esc x2842 &g1esc x2942 &g2esc x2a42 &g3esc x2b42
&alias ASCII
&alias ISO646-US
&alias US-ASCII
&alias us
&alias IBM367
&alias cp367
&code 0
NU SH SX EX ET EQ AK BL BS HT LF VT FF CR SO SI
DL D1 D2 D3 D4 NK SY EB CN EM SB EC FS GS RS US
SP ! " Nb DO % & ’ ( ) * + , - . / 0 1 2 3 4 5 6 7 8 9 : ; < = > ?
At A B C D E F G H I J K L M N O P Q R S T U V W X Y Z <( // )> ’> _
’! a b c d e f g h i j k l m n o p q r s t u v w x y z (! !! !) ’? DT

&charset NATS-SEFI
&rem source: ECMA registry
&alias iso-ir-8-1
&g0esc x2843 &g1esc x2943 &g2esc x2a43 &g3esc x2b43
&code 0
NU SH SX EX ET EQ AK BL BS HT LF VT FF CR SO SI
DL D1 D2 D3 D4 NK SY EB CN EM SB EC FS GS RS US
SP ! " Nb DO % & ’ ( ) * + , - . / 0 1 2 3 4 5 6 7 8 9 : ; < = > ?
```

```
  UA A B C D E F G H I J K L M N O P Q R S T U V W X Y Z A: O: AA fS _
  UB a b c d e f g h i j k l m n o p q r s t u v w x y z a: o: aa -N DT

  &charset NATS-SEFI-ADD
  &rem source: ECMA registry
  &alias iso-ir-8-2
  &g0esc x2844 &g1esc x2944 &g2esc x2a44 &g3esc x2b44
  &code 0
  ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ??
  ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ??
  ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ??
  ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ??
  ?? A! ?? ?? D/ E' ?? ?? ?? ?? ?? ?? ?? ?? ?? ??
  TH ?? ?? ?? ?? U: ?? ?? ?? ?? ?? AE O/ ?? ?? ??
  ?? a! ?? ?? d/ e' ?? ?? ?? ?? ?? ?? ?? ?? ?? ??
  th ?? ?? ?? ?? u: ?? ?? ?? ?? ?? ae o/ ?? ?? ??

  &charset NATS-DANO
  &rem source: ECMA registry
  &alias iso-ir-9-1
  &g0esc x2845 &g1esc x2945 &g2esc x2a45 &g3esc x2b45
  &code 0
  NU SH SX EX ET EQ AK BL BS HT LF VT FF CR SO SI
  DL D1 D2 D3 D4 NK SY EB CN EM SB EC FS GS RS US
  SP ! << >> DO % & ' ( ) * + , - . / 0 1 2 3 4 5 6 7 8 9 : ; < = > ?
  UA A B C D E F G H I J K L M N O P Q R S T U V W X Y Z AE O/ AA fS _
  UB a b c d e f g h i j k l m n o p q r s t u v w x y z ae o/ aa -N DT

  &charset NATS-DANO-ADD
  &rem source: ECMA registry
  &alias iso-ir-9-2
  &g0esc x2846 &g1esc x2946 &g2esc x2a46 &g3esc x2b46
  &code 0
  ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ??
  ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ??
  ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ??
  ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ??
  ?? A! ?? ?? D/ E' ?? ?? ?? ?? ?? ?? ?? ?? ?? ??
  TH ?? ?? ?? ?? U: ?? ?? ?? ?? ?? A: O: ?? ?? ??
  ?? a! ?? ?? d/ e' ?? ?? ?? ?? ?? ?? ?? ?? ?? ??
  th ?? ?? ?? ?? u: ?? ?? ?? ?? ?? a: o: ?? ?? ??

  &charset SEN_850200_B
  &rem source: ECMA registry
  &alias iso-ir-10
  &alias FI
  &alias ISO646-FI
  &alias ISO646-SE
  &alias se
  &g0esc x2847 &g1esc x2947 &g2esc x2a47 &g3esc x2b47
  &code 0
  NU SH SX EX ET EQ AK BL BS HT LF VT FF CR SO SI
  DL D1 D2 D3 D4 NK SY EB CN EM SB EC FS GS RS US
```

```
  SP ! " Nb Cu % & ’ ( ) * + , - . / 0 1 2 3 4 5 6 7 8 9 : ; < = > ?
  At A B C D E F G H I J K L M N O P Q R S T U V W X Y Z A: O: AA ’> _
  ’! a b c d e f g h i j k l m n o p q r s t u v w x y z a: o: aa ’- DT

  &charset SEN_850200_C
  &rem source: ECMA registry
  &alias iso-ir-11
  &alias ISO646-SE2
  &g0esc x2848 &g1esc x2948 &g2esc x2a48 &g3esc x2b48
  &alias se2
  &code 0
  NU SH SX EX ET EQ AK BL BS HT LF VT FF CR SO SI
  DL D1 D2 D3 D4 NK SY EB CN EM SB EC FS GS RS US
  SP ! " Nb Cu % & ’ ( ) * + , - . / 0 1 2 3 4 5 6 7 8 9 : ; < = > ?
  E’ A B C D E F G H I J K L M N O P Q R S T U V W X Y Z A: O: AA U: _
  e’ a b c d e f g h i j k l m n o p q r s t u v w x y z a: o: aa u: DT

  &charset JIS_C6220-1969-jp
  &rem source: ECMA registry
  &alias JIS_C6220-1969
  &alias iso-ir-13
  &alias katakana
  &alias x0201-7
  &g0esc x2849 &g1esc x2949 &g2esc x2a49 &g3esc x2b49
  &code 0
  NU SH SX EX ET EQ AK BL BS HT LF VT FF CR SO SI
  DL D1 D2 D3 D4 NK SY EB CN EM SB EC FS GS RS US
  SP ._ <’ >’ ,_ .6 Wo a6 i6 u6 e6 o6 YA YU YO TU
  -6 A6 I6 U6 E6 O6 Ka Ki Ku Ke Ko Sa Si Su Se So
  Ta Ti Tu Te To Na Ni Nu Ne No Ha Hi Hu He Ho Ma
  Mi Mu Me Mo Ya Yu Yo Ra Ri Ru Re Ro Wa N6 "5 05
  ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ??
  ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? DT

  &charset JIS_C6220-1969-ro
  &rem source: ECMA registry
  &alias iso-ir-14
  &g0esc x284a &g1esc x294a &g2esc x2a4a &g3esc x2b4a
  &alias jp
  &alias ISO646-JP
  &code 0
  NU SH SX EX ET EQ AK BL BS HT LF VT FF CR SO SI
  DL D1 D2 D3 D4 NK SY EB CN EM SB EC FS GS RS US
  SP ! " Nb DO % & ’ ( ) * + , - . / 0 1 2 3 4 5 6 7 8 9 : ; < = > ?
  At A B C D E F G H I J K L M N O P Q R S T U V W X Y Z <( Ye )> ’> _
  ’! a b c d e f g h i j k l m n o p q r s t u v w x y z (! !! !) ’- DT

  &charset IT
  &rem source: ECMA registry
  &alias iso-ir-15
  &alias ISO646-IT
  &g0esc x2859 &g1esc x2959 &g2esc x2a59 &g3esc x2b59
  &code 0
```

```
  NU SH SX EX ET EQ AK BL BS HT LF VT FF CR SO SI
  DL D1 D2 D3 D4 NK SY EB CN EM SB EC FS GS RS US
  SP ! " Pd DO % & ’ ( ) * + , - . / 0 1 2 3 4 5 6 7 8 9 : ; < = > ?
  SE A B C D E F G H I J K L M N O P Q R S T U V W X Y Z DG c, e’ ’> _
  u! a b c d e f g h i j k l m n o p q r s t u v w x y z a! o! e! i! DT

  &charset PT
  &rem source: ECMA registry
  &alias iso-ir-16
  &alias ISO646-PT
  &g0esc x284c &g1esc x294c &g2esc x2a4c &g3esc x2b4c
  &code 0
  NU SH SX EX ET EQ AK BL BS HT LF VT FF CR SO SI
  DL D1 D2 D3 D4 NK SY EB CN EM SB EC FS GS RS US
  SP ! " Nb DO % & ’ ( ) * + , - . / 0 1 2 3 4 5 6 7 8 9 : ; < = > ?
  SE A B C D E F G H I J K L M N O P Q R S T U V W X Y Z A? C, O? ’> _
  ’! a b c d e f g h i j k l m n o p q r s t u v w x y z a? c, o? DG DT

  &charset ES
  &rem source: ECMA registry
  &alias iso-ir-17
  &alias ISO646-ES
  &g0esc x285a &g1esc x295a &g2esc x2a5a &g3esc x2b5a
  &code 0
  NU SH SX EX ET EQ AK BL BS HT LF VT FF CR SO SI
  DL D1 D2 D3 D4 NK SY EB CN EM SB EC FS GS RS US
  SP ! " Pd DO % & ’ ( ) * + , - . / 0 1 2 3 4 5 6 7 8 9 : ; < = > ?
  SE A B C D E F G H I J K L M N O P Q R S T U V W X Y Z !I N? ?I ’> _
  ’! a b c d e f g h i j k l m n o p q r s t u v w x y z DG n? c, ’? DT

  &charset greek7-old
  &rem source: ECMA registry
  &alias iso-ir-18
  &g0esc x285b &g1esc x295b &g2esc x2a5b &g3esc x2b5b
  &code 0
  NU SH SX EX ET EQ AK BL BS HT LF VT FF CR SO SI
  DL D1 D2 D3 D4 NK SY EB CN EM SB EC FS GS RS US
  SP ! " Pd DO % & ’ ( ) * + , - . / 0 1 2 3 4 5 6 7 8 9 : ; < = > ?
  ’’ a* b* q* d* e* f* g* y* i* c* k* l* m* n* o*
  p* j3 r* s* t* h* w* *s x* u* z* ?, ,, ,’ ’? _
  ’! A* B* Q* D* E* F* G* Y* I* C* K* L* M* N* O*
  P* ?? R* S* T* H* W* .M X* U* Z* ?; ;; ;’ ’: DT

  &charset latin-greek
  &rem source: ECMA registry
  &alias iso-ir-19
  &g0esc x285c &g1esc x295c &g2esc x2a5c &g3esc x2b5c
  &code 0
  NU SH SX EX ET EQ AK BL BS HT LF VT FF CR SO SI
  DL D1 D2 D3 D4 NK SY EB CN EM SB EC FS GS RS US
  SP ! " Pd DO % & ’ ( ) * + , - . / 0 1 2 3 4 5 6 7 8 9 : ; < = > ?
  At A  B  C  D  E  F  G  H  I  J  K  L  M  N  O
  P  Q  R  S  T  U  V  W  X  Y  Z  <( // )> ’> _
```

```
  ’! A* B* Q* D* E* F* G* Y* I* C* K* L* M* N* O*
  P* ?? R* S* T* H* W* .M X* U* Z* (! !! !) ’: DT

  &charset DIN_66003
  &rem source: ECMA registry
  &alias iso-ir-21
  &g0esc x284b &g1esc x294b &g2esc x2a4b &g3esc x2b4b
  &alias de
  &alias ISO646-DE
  &code 0
  NU SH SX EX ET EQ AK BL BS HT LF VT FF CR SO SI
  DL D1 D2 D3 D4 NK SY EB CN EM SB EC FS GS RS US
  SP ! " Nb DO % & ’ ( ) * + , - . / 0 1 2 3 4 5 6 7 8 9 : ; < = > ?
  SE A B C D E F G H I J K L M N O P Q R S T U V W X Y Z A: O: U: ’> _
  ’! a b c d e f g h i j k l m n o p q r s t u v w x y z a: o: u: ss DT

  &charset NF_Z_62-010_(1973)
  &rem source: ECMA registry
  &alias iso-ir-25
  &alias ISO646-FR1
  &g0esc x2852 &g1esc x2952 &g2esc x2a52 &g3esc x2b52
  &code 0
  NU SH SX EX ET EQ AK BL BS HT LF VT FF CR SO SI
  DL D1 D2 D3 D4 NK SY EB CN EM SB EC FS GS RS US
  SP ! " Pd DO % & ’ ( ) * + , - . / 0 1 2 3 4 5 6 7 8 9 : ; < = > ?
  a! A B C D E F G H I J K L M N O P Q R S T U V W X Y Z DG c, SE ’> _
  ’! a b c d e f g h i j k l m n o p q r s t u v w x y z e’ u! e! ’: DT

  &charset Latin-greek-1
  &rem source: ECMA registry
  &alias iso-ir-27
  &g0esc x2855 &g1esc x2955 &g2esc x2a55 &g3esc x2b55
  &code 0
  NU SH SX EX ET EQ AK BL BS HT LF VT FF CR SO SI
  DL D1 D2 D3 D4 NK SY EB CN EM SB EC FS GS RS US
  SP C* " G* Cu % & ’ ( ) * + , - . /
  0 1 2 3 4 5 6 7 8 9 Q* ; < = > P*
  D* A B C D E F G H I J K L M N O
  P Q R S T U V W X Y Z W* H* F* L* S*
  ’! a b c d e f g h i j k l m n o
  p q r s t u v w x y z (! !! !) ’- DT

  &charset ISO_5427
  &rem source: ECMA registry
  &alias iso-ir-37
  &g0esc x284e &g1esc x294e &g2esc x2a4e &g3esc x2b4e
  &code 0
  NU SH SX EX ET EQ AK BL BS HT LF VT FF CR SO SI
  DL D1 D2 D3 D4 NK SY EB CN EM SB EC FS GS RS US
  SP ! " Nb Cu % & ’ ( ) * + , - . / 0 1 2 3 4 5 6 7 8 9 : ; < = > ?
  ju a= b= c= d= e= f= g= h= i= j= k= l= m= n= o=
  p= ja r= s= t= u= z% v= %’ y= z= s% je sc c% =’
  JU A= B= C= D= E= F= G= H= I= J= K= L= M= N= O=
```

```
  P= JA R= S= T= U= Z% V= %" Y= Z= S% JE Sc C% DT

  &charset JIS_C6226-1978
  &rem source: ECMA registry
  &alias iso-ir-42
  &bits 16
  &g0esc x2440 &g1esc x242940 &g2esc x242a40 &g3esc x242b40
  &code2 1 1
  SP ,_ ._ , . .6 : ; ! "5 05 ’’ ’! ’: ’> ’- _ *6 +6 *5 +5 +"
  +_ *_ ;_ 0_ -6 -? -N
  &code2 1 31
  FD BD ?1 PP !! .3 .. ’6 ’9 "6 "9 ( ) (’ )’ <( )>
  (! !) <1 >1 </ /> <’ >’ <" >" (" )" + - +- *X -: = != < > =< >= 00
  .: Ml Fm DG 1’ 2’ oC Ye DO Ct Pd % Nb & * At SE *1 *2 0m 0M 0o LZ
  &code2 2 1
  Db OS fS uT UT dT DT :X =T -> <- -! -v =_
  &code2 3 16
  0 1 2 3 4 5 6 7 8 9
  &code2 3 33
  A B C D E F G H I J K L M N O P Q R S T U V W X Y Z
  &code2 3 65
  a b c d e f g h i j k l m n o p q r s t u v w x y z
  &code2 4 1
     A5 a5 I5 i5 U5 u5 E5 e5 O5 o5 ka ga ki gi ku
  gu ke ge ko go sa za si zi su zu se ze so zo ta
  da ti di tU tu du te de to do na ni nu ne no ha
  ba pa hi bi pi hu bu pu he be pe ho bo po ma mi
  mu me mo yA ya yU yu yO yo ra ri ru re ro wA wa
  wi we wo n5
  &code2 5 1
     a6 A6 i6 I6 u6 U6 e6 E6 o6 O6 Ka Ga Ki Gi Ku
  Gu Ke Ge Ko Go Sa Za Si Zi Su Zu Se Ze So Zo Ta
  Da Ti Di TU Tu Du Te De To Do Na Ni Nu Ne No Ha
  Ba Pa Hi Bi Pi Hu Bu Pu He Be Pe Ho Bo Po Ma Mi
  Mu Me Mo YA Ya YU Yu YO Yo Ra Ri Ru Re Ro WA Wa
  Wi We Wo N6 Vi KA KE
  &code2 6 1
  A* B* G* D* E* Z* Y* H* I* K* L* M* N* C* O*
  P* R* S* T* U* F* X* Q* W*
  &code2 6 33
  a* b* g* d* e* z* y* h* i* k* l* m* n* c* o*
  p* r* s* t* u* f* x* q* w*
  &code2 7 1
  A= B= V= G= D= E= IO Z% Z= I= J= K= L= M= N= O= P=
  R= S= T= U= F= H= C= C% S% Sc =" Y= %" JE JU JA
  &code2 7 49
  a= b= v= g= d= e= io z% z= i= j= k= l= m= n= o= p=
  r= s= t= u= f= h= c= c% s% sc =’ y= %’ je ju ja
  &codex j 16 46 1 94
  &codex j 47 47 1 51
  &codex j 48 83 1 94

  &charset BS_viewdata
```

```
  &rem source: ECMA registry
  &alias iso-ir-47
  &g0esc x2856 &g1esc x2956 &g2esc x2a56 &g3esc x2b56
  &code 0
  NU SH SX EX ET EQ AK BL BS HT LF VT FF CR SO SI
  DL D1 D2 D3 D4 NK SY EB CN EM SB EC FS GS RS US
  SP ! " Pd DO % & ' ( ) * + , - . / 0 1 2 3 4 5 6 7 8 9 : ; < = > ?
  At A B C D E F G H I J K L M N O P Q R S T U V W X Y Z <- 12 -> -! OS
  '! a b c d e f g h i j k l m n o p q r s t u v w x y z 14 PP 34 -: DT

  &charset INIS
  &rem source: ECMA registry
  &alias iso-ir-49
  &g0esc x2857 &g1esc x2957 &g2esc x2a57 &g3esc x2b57
  &code 0
  NU SH SX EX ET EQ AK BL BS HT LF VT FF CR SO SI
  DL D1 D2 D3 D4 NK SY EB CN EM SB EC FS GS RS US
  SP ?? ?? ?? DO % ?? ' ( ) * + , - . / 0 1 2 3 4 5 6 7 8 9 : ; < = > ??
  ?? A B C D E F G H I J K L M N O P Q R S T U V W X Y Z <( ?? )> ?? ??
  ?? a b c d e f g h i j k l m n o p q r s t u v w x y z ?? !! ?? ?? DT

  &charset INIS-8
  &rem source: ECMA registry
  &alias iso-ir-50
  &g0esc x285d &g1esc x295d &g2esc x2a5d &g3esc x2b5d
  &code 0
  NU SH SX EX ET EQ AK BL BS HT LF VT FF CR SO SI
  DL D1 D2 D3 D4 NK SY EB CN EM SB EC FS GS RS US
  SP ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ??
  ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? a* b* g* d* C* ??
  ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ??
  ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? -> In
  0S 1S 2S 3S 4S 5S 6S 7S 8S 9S +S -S Ru D* L* W*
  0s 1s 2s 3s 4s 5s 6s 7s 8s 9s S* m* n* w* p* DT

  &charset INIS-cyrillic
  &rem source: ECMA registry
  &alias iso-ir-51
  &g0esc x285e &g1esc x295e &g2esc x2a5e &g3esc x2b5e
  &code 0
  NU SH SX EX ET EQ AK BL BS HT LF VT FF CR SO SI
  DL D1 D2 D3 D4 NK SY EB CN EM SB EC FS GS RS US
  SP ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? RT ?? -> In
  a* b* g* d* S* m* n* w* p* C* D* L* W* =" -S +S
  ju a= b= c= d= e= f= g= h= i= j= k= l= m= n= o=
  p= ja r= s= t= u= z% v= %' y= z= s% je sc c% ='
  JU A= B= C= D= E= F= G= H= I= J= K= L= M= N= O=
  P= JA R= S= T= U= Z% V= %" Y= Z= S% JE Sc C% DT

  &charset ISO_5427:1981
  &rem source: ECMA registry
  &alias iso-ir-54
  &g0esc x2851 &g1esc x2951 &g2esc x2a51 &g3esc x2b51
```

```
&code 0
NU SH SX EX ET EQ AK BL BS HT LF VT FF CR SO SI
DL D1 D2 D3 D4 NK SY EB CN EM SB EC FS GS RS US
SP ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ??
?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ??
g3 d% g% ie io ds ii yi j% lj nj ts kj v% dz ??
y3 f3 v3 o3 ?? ?? ?? ?? ?? ?? ?? <( ?? )> ?? _
G3 D% G% IE IO DS II YI J% LJ NJ Ts KJ V% DZ ="
Y3 F3 V3 O3 ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? DT

&charset ISO_5428:1980
&rem source: ECMA registry
&alias iso-ir-55
&g0esc x2853 &g1esc x2953 &g2esc x2a53 &g3esc x2b53
&code 0
NU SH SX EX ET EQ AK BL BS HT LF VT FF CR SO SI
DL D1 D2 D3 D4 NK SY EB CN EM SB EC FS GS RS US
SP "! "’ ": "? "p "d "i ?? ?? ?? ?? ?? ?? ?? ??
<< >> "9 "6 ’G ,G ?? ?? ?? ?? ?? .M ?? ?? ?? ;
?? A* B* ?? G* D* E* T3 M3 Z* Y* H* I* K* L* M*
N* C* O* P* K3 R* S* ?? T* U* F* X* Q* W* P3 ??
?? a* b* b3 g* d* e* t3 m3 z* y* h* i* k* l* m*
n* c* o* p* k3 r* s* *s t* u* f* x* q* w* p3 DT

&charset GB_1988-80
&rem source: ECMA registry
&alias iso-ir-57
&g0esc x2854 &g1esc x2954 &g2esc x2a54 &g3esc x2b54
&alias cn
&alias ISO646-CN
&code 0
NU SH SX EX ET EQ AK BL BS HT LF VT FF CR SO SI
DL D1 D2 D3 D4 NK SY EB CN EM SB EC FS GS RS US
SP ! " Nb Ye % & ’ ( ) * + , - . / 0 1 2 3 4 5 6 7 8 9 : ; < = > ?
At A B C D E F G H I J K L M N O P Q R S T U V W X Y Z <( // )> ’> _
’! a b c d e f g h i j k l m n o p q r s t u v w x y z (! !! !) ’- DT

&charset GB_2312-80
&rem source: ECMA registry
&alias iso-ir-58
&g0esc x2441 &g1esc x242941 &g2esc x242a41 &g3esc x242b41
&bits 16
&alias chinese
&code2 1 1
SP ,_ .6 .M ’m ’< ’: +" *_ -6 ?1
!2 .3 ’6 ’9 "6 "9 (’ )’
<1 >1 << >> <+ >+ <7 7> (I )I (" )" +- *X -: :R AN OR +Z *P (U )U (-
:: RT -T PP -L
(A 0. In Io =3 =? ?2 CG 0( != !< !> =< >= 00
:. .: Ml Fm DG 1’ 2’ oC DO
Cu Ct Pd %0 SE NB *1 *2 0m 0M 0o Dw Db OS fS uT UT :X -> <- -! -v =_
&code2 2 17
1. 2. 3. 4. 5. 6. 7. 8. 9. 10. 11. 12. 13. 14. 15. 16. 17. 18. 19. 20.
```

```
   (1) (2) (3) (4) (5) (6) (7) (8) (9) (10) (11) (12) (13) (14)
   (15) (16) (17) (18) (19) (20) 1-o 2-o 3-o 4-o 5-o 6-o 7-o 8-o 9-o
   &code2 2 69
   1c 2c 3c 4c 5c 6c 7c 8c 9c 10c
   &code2 2 81
   1R 2R 3R 4R 5R 6R 7R 8R 9R aR bR cR
   &code2 3 1
   ! " Nb Ye % & ' ( ) * + , - . / 0 1 2 3 4 5 6 7
   8 9 : ; < = > ? At A B C D E F G H I J K L M N O
   P Q R S T U V W X Y Z <( // )> '> _ a b c d e f g
   h i j k l m n o p q r s t u v w x y z (! !! !) '-
   &code2 4 1
      A5 a5 I5 i5 U5 u5 E5 e5 O5 o5 ka ga ki gi ku
   gu ke ge ko go sa za si zi su zu se ze so zo ta
   da ti di tU tu du te de to do na ni nu ne no ha
   ba pa hi bi pi hu bu pu he be pe ho bo po ma mi
   mu me mo yA ya yU yu yO yo ra ri ru re ro wA wa
   wi we wo n5
   &code2 5 1
      a6 A6 i6 I6 u6 U6 e6 E6 o6 O6 Ka Ga Ki Gi Ku
   Gu Ke Ge Ko Go Sa Za Si Zi Su Zu Se Ze So Zo Ta
   Da Ti Di TU Tu Du Te De To Do Na Ni Nu Ne No Ha
   Ba Pa Hi Bi Pi Hu Bu Pu He Be Pe Ho Bo Po Ma Mi
   Mu Me Mo YA Ya YU Yu YO Yo Ra Ri Ru Re Ro WA Wa
   Wi We Wo N6 Vi KA KE
   &code2 6 1
   A* B* G* D* E* Z* Y* H* I* K* L* M* N* C* O*
   P* R* S* T* U* F* X* Q* W*
   &code2 6 33
   a* b* g* d* e* z* y* h* i* k* l* m* n* c* o*
   p* r* s* t* u* f* x* q* w*
   &code2 7 1
   A= B= V= G= D= E= IO Z% Z= I= J= K= L= M= N= O= P=
   R= S= T= U= F= H= C= C% S% Sc =" Y= %" JE JU JA
   &code2 7 49
   a= b= v= g= d= e= io z% z= i= j= k= l= m= n= o= p=
   r= s= t= u= f= h= c= c% s% sc =' y= %' je ju ja
   &code2 8 1
   a- a' a< a! e- e' e< e! i- i' i< i! o- o' o< o! u- u' u< u! u:- u:<
   u:! u: e>
   &code2 8 37
   b4 p4 m4 f4 d4 t4 n4 l4 g4 k4 h4 j4 q4 x4 zh ch sh r4 z4 c4
   s4 a4 o4 e4 eh4 ai ei au ou an en aN eN er i4 u4 iu
   &code2 9 4
   hh HH vv VV 3- 3_ 3! 3/ 4- 4_ 4! 4/ dr dR Dr DR dl dL Dl LD
   ur uR Ur UR ul uL Ul UL vr vR Udr uDr Vr UdR uDR VR
   vl vL Udl uDl Vl UdL uDL VL
   dh dLr dlR dH Dh DLr DlR DH
   vh vLr vlR vH Udh uDh Vh UdLr
   UdlR uDLr uDlR UdH uDH VLr VlR VH
   &codex c 16 54 1 94
   &codex c 55 55 1 89
   &codex c 56 87 1 94
```

```
&charset NS_4551-1
&rem source: ECMA registry
&alias iso-ir-60
&alias ISO646-NO
&g0esc x2860 &g1esc x2960 &g2esc x2a60 &g3esc x2b60
&alias no
&code 0
NU SH SX EX ET EQ AK BL BS HT LF VT FF CR SO SI
DL D1 D2 D3 D4 NK SY EB CN EM SB EC FS GS RS US
SP ! " Nb DO % & ’ ( ) * + , - . / 0 1 2 3 4 5 6 7 8 9 : ; < = > ?
At A B C D E F G H I J K L M N O P Q R S T U V W X Y Z AE O/ AA ’> _
’! a b c d e f g h i j k l m n o p q r s t u v w x y z ae o/ aa ’- DT

&charset NS_4551-2
&rem source: ECMA registry
&alias ISO646-NO2
&alias iso-ir-61
&g0esc x2861 &g1esc x2961 &g2esc x2a61 &g3esc x2b61
&alias no2
&code 0
NU SH SX EX ET EQ AK BL BS HT LF VT FF CR SO SI
DL D1 D2 D3 D4 NK SY EB CN EM SB EC FS GS RS US
SP ! " PI DO % & ’ ( ) * + , - . / 0 1 2 3 4 5 6 7 8 9 : ; < = > ?
At A B C D E F G H I J K L M N O P Q R S T U V W X Y Z AE O/ AA ’> _
’! a b c d e f g h i j k l m n o p q r s t u v w x y z ae o/ aa !! DT

&charset NF_Z_62-010
&rem source: ECMA registry
&alias iso-ir-69
&alias ISO646-FR
&g0esc x2866 &g1esc x2966 &g2esc x2a66 &g3esc x2b66
&alias fr
&code 0
NU SH SX EX ET EQ AK BL BS HT LF VT FF CR SO SI
DL D1 D2 D3 D4 NK SY EB CN EM SB EC FS GS RS US
SP ! " Pd DO % & ’ ( ) * + , - . / 0 1 2 3 4 5 6 7 8 9 : ; < = > ?
a! A B C D E F G H I J K L M N O P Q R S T U V W X Y Z DG c, SE ’> _
My a b c d e f g h i j k l m n o p q r s t u v w x y z e’ u! e! ’: DT

&charset videotex-suppl
&rem source: ECMA registry
&alias iso-ir-70
&g0esc x2862 &g1esc x2962 &g2esc x2a62 &g3esc x2b62
&code 0
NU SH SX EX ET EQ AK BL BS HT LF VT FF CR SO SI
DL D1 D2 D3 D4 NK SY EB CN EM SB EC FS GS RS US
SP ! " ?? ?? % & ’ ( ) * + , - . / 0 1 2 3 4 5 6 7 8 9 : ; < = > ?
At A B C D E F G H I J K L M N O P Q R S T U V W X Y Z <( // )> ’> _
’! a b c d e f g h i j k l m n o p q r s t u v w x y z (! !! !) ’- DT
PA HO BH NH IN NL SA ES HS HJ VS PD PU RI S2 S3
DC P1 P2 TS CC MW SG EG SS GC SC CI ST OC PM AC
NS !I Ct Pd DO Ye Nb SE Cu ’6 "6 << <- -! -> -v
```

```
  DG +- 2S 3S *X My PI .M -: '9 "9 >> 14 12 34 ?I
  "1 "! "' "> "? "- "( ". ": ?? "0 ", ?? "" "; "<
  -M 1S Rg Co TM Md ?? ?? ?? ?? ?? ?? 18 38 58 78
  Om AE D- -a H/ ?? IJ L. L/ O/ OE -o TH T/ NG 'n
  kk ae d/ d- h/ i. ij l. l/ o/ oe ss th t/ ng ??
  &comb2 "' SP '' a a' A A' e e' E E' i i' I I' o o' O O' u u' U U'
                  y y' Y Y' c c' C C' l l' L L' n n' N N' r r' R R'
                  s s' S S' z z' Z Z'
  &comb2 "( SP '( a a( A A( g g( G G(                     u u( U U(
  &comb2 "< SP '< c c< C C< d d< D D< e e< E E< l l< L L< n n< N N<
                  r r< R R< s s< S S< t t< T T< z z< Z Z<
  &comb2 ", SP ', c c, C C, g g, G G, k k, K K, l l, L L, n n, N N,
                  r r, R R, s s, S S, t t, T T,
  &comb2 ">       a a> A A> e e> E E> i i> I I> o o> O O> u u> U U>
                  y y> Y Y> c c> C C> g g> G G> h h> H H> j j> J J>
                  s s> S S> w w> W W>
  &comb2 ": SP ': a a: A A: e e: E E: i i: I I: o o: O O: u u: U U:
                  y y: Y Y:
  &comb2 ". SP '. c c. C C. e e. E E. g g. G G.     I I. z z. Z Z.
  &comb2 "" SP '"                               o o" O O" u u" U U"
  &comb2 "!       a a! A A! e e! E E! i i! I I! o o! O O! u u! U U!
  &comb2 "-       a a- A A- e e- E E- i i- I I- o o- O O- u u- U U-
  &comb2 "; SP '; a a; A A; e e; E E; i i; I I; u u; U U;
  &comb2 "0 SP '0 a aa A AA                               u u0 U U0
  &comb2 "? SP '? a a? A A? n n? N N? i i? I I? o o? O O? u u? U U?

  &charset PT2
  &rem source: ECMA registry
  &alias iso-ir-84
  &alias ISO646-PT2
  &g0esc x2867 &g1esc x2967 &g2esc x2a67 &g3esc x2b67
  &code 0
  NU SH SX EX ET EQ AK BL BS HT LF VT FF CR SO SI
  DL D1 D2 D3 D4 NK SY EB CN EM SB EC FS GS RS US
  SP ! " Nb DO % & ' ( ) * + , - . / 0 1 2 3 4 5 6 7 8 9 : ; < = > ?
  '' A B C D E F G H I J K L M N O P Q R S T U V W X Y Z A? C, O? '> _
  '! a b c d e f g h i j k l m n o p q r s t u v w x y z a? c, o? '- DT

  &charset ES2
  &rem source: ECMA registry
  &alias iso-ir-85
  &alias ISO646-ES2
  &g0esc x2868 &g1esc x2968 &g2esc x2a68 &g3esc x2b68
  &code 0
  NU SH SX EX ET EQ AK BL BS HT LF VT FF CR SO SI
  DL D1 D2 D3 D4 NK SY EB CN EM SB EC FS GS RS US
  SP ! " Nb DO % & ' ( ) * + , - . / 0 1 2 3 4 5 6 7 8 9 : ; < = > ?
  Sb A B C D E F G H I J K L M N O P Q R S T U V W X Y Z !I N? C, ?I _
  '! a b c d e f g h i j k l m n o p q r s t u v w x y z '' n? c, ': DT

  &charset MSZ_7795.3
  &rem source: ECMA registry
  &alias iso-ir-86
```

```
  &alias ISO646-HU
  &g0esc x2869 &g1esc x2969 &g2esc x2a69 &g3esc x2b69
  &alias hu
  &code 0
  NU SH SX EX ET EQ AK BL BS HT LF VT FF CR SO SI
  DL D1 D2 D3 D4 NK SY EB CN EM SB EC FS GS RS US
  SP ! " Nb Cu % & ' ( ) * + , - . / 0 1 2 3 4 5 6 7 8 9 : ; < = > ?
  A' A B C D E F G H I J K L M N O P Q R S T U V W X Y Z E' O: U: '> _
  a' a b c d e f g h i j k l m n o p q r s t u v w x y z e' o: u: '" DT

  &charset JIS_C6226-1983
  &rem source: ECMA registry
  &alias iso-ir-87
  &bits 16
  &g0esc x2442 &g1esc x242942 &g2esc x242a42 &g3esc x242b42
  &alias x0208
  &alias JIS_X0208-1983
  &code2 1 1
  SP ,_ ._ , . .6 : ; ! "5 05 '' '! ': '> '- _ *6 +6 *5 +5 +"
  +_ *_ ;_ 0_ -6 -? -N
  &code2 1 31
  FD BD ?1 PP !! .3 .. '6 '9 "6 "9 ( ) (' )' <( )>
  (! !) <1 >1 </ /> <' >' <" >" (" )" + - +- *X -: = != < > =< >= 00
  .: Ml Fm DG 1' 2' oC Ye DO Ct Pd % Nb & * At SE *1 *2 0m 0M 0o LZ
  &code2 2 1
  Db OS fS uT UT dT DT :X =T -> <- -! -v =_
  &code2 2 26
  (- -) (_ )_ (C )C (U )U
  &code2 2 42
  AN OR NO => <= FA TE
  &code2 2 60
  -V -T (A dP NB =3 HI <* *> RT CG 0( :. In DI
  &code2 2 82
  AA %0 MX Mb Md /- /= PI
  &code2 2 94
  Ci
  &code2 3 16
  0 1 2 3 4 5 6 7 8 9
  &code2 3 33
  A B C D E F G H I J K L M N O P Q R S T U V W X Y Z
  &code2 3 65
  a b c d e f g h i j k l m n o p q r s t u v w x y z
  &code2 4 1
     A5 a5 I5 i5 U5 u5 E5 e5 O5 o5 ka ga ki gi ku
  gu ke ge ko go sa za si zi su zu se ze so zo ta
  da ti di tU tu du te de to do na ni nu ne no ha
  ba pa hi bi pi hu bu pu he be pe ho bo po ma mi
  mu me mo yA ya yU yu yO yo ra ri ru re ro wA wa
  wi we wo n5
  &code2 5 1
     a6 A6 i6 I6 u6 U6 e6 E6 o6 O6 Ka Ga Ki Gi Ku
  Gu Ke Ge Ko Go Sa Za Si Zi Su Zu Se Ze So Zo Ta
  Da Ti Di TU Tu Du Te De To Do Na Ni Nu Ne No Ha
```

```
  Ba Pa Hi Bi Pi Hu Bu Pu He Be Pe Ho Bo Po Ma Mi
  Mu Me Mo YA Ya YU Yu YO Yo Ra Ri Ru Re Ro WA Wa
  Wi We Wo N6 Vi KA KE
  &code2 6 1
  A* B* G* D* E* Z* Y* H* I* K* L* M* N* C* O*
  P* R* S* T* U* F* X* Q* W*
  &code2 6 33
  a* b* g* d* e* z* y* h* i* k* l* m* n* c* o*
  p* r* s* t* u* f* x* q* w*
  &code2 7 1
  A= B= V= G= D= E= IO Z% Z= I= J= K= L= M= N= O= P=
  R= S= T= U= F= H= C= C% S% Sc =" Y= %" JE JU JA
  &code2 7 49
  a= b= v= g= d= e= io z% z= i= j= k= l= m= n= o= p=
  r= s= t= u= f= h= c= c% s% sc =’ y= %’ je ju ja
  &code2 8 1
  hh vv dr dl ul ur vr dh vl uh vh
  HH VV DR LD UL UR VR DH VL UH VH
  Vr dH Vl uH vH vR Dh vL Uh Vh
  &codex j 16 46 1 94
  &codex j 47 47 1 51
  &codex j 48 83 1 94
  &codex j 84 84 1 4

  &charset greek7
  &rem source: ECMA registry
  &alias iso-ir-88
  &g0esc x286a &g1esc x296a &g2esc x2a6a &g3esc x2b6a
  &code 0
  NU SH SX EX ET EQ AK BL BS HT LF VT FF CR SO SI
  DL D1 D2 D3 D4 NK SY EB CN EM SB EC FS GS RS US
  SP ! " Nb Cu % & ’ ( ) * + , - . / 0 1 2 3 4 5 6 7 8 9 : ; < = > ?
  At A* B* G* D* E* Z* Y* H* I* ?? K* L* M* N* C*
  O* P* R* S* T* U* F* ?? X* Q* W* <( // )> ’> _
  ’! a* b* g* d* e* z* y* h* i* ?? k* l* m* n* c*
  o* p* r* s* t* u* f* *s x* q* w* (! !! !) ’- DT

  &charset ASMO_449
  &rem source: ECMA registry
  &alias ISO_9036
  &alias arabic7
  &alias iso-ir-89
  &g0esc x286b &g1esc x296b &g2esc x2a6b &g3esc x2b6b
  &code 0
  NU SH SX EX ET EQ AK BL BS HT LF VT FF CR SO SI
  DL D1 D2 D3 D4 NK SY EB CN EM SB EC FS GS RS US
  SP ! " Nb Cu % & ’ ( ) * + ,+ - . / 0 1 2 3 4 5 6 7 8 9 : ;+ < = > ?+
  At H’ aM aH wH ah yH a+ b+ tm t+ tk g+ hk x+ d+
  dk r+ z+ s+ sn c+ dd tj zH e+ i+ <( // )> ’> _
  ++ f+ q+ k+ l+ m+ n+ h+ w+ j+ y+ :+ "+ =+ /+ ’+
  1+ 3+ 0+ ?? ?? ?? ?? ?? ?? ?? ?? (! !! !) ’- DT

  &charset iso-ir-90
```

```
   &rem source: ECMA registry
   &g0esc x286c &g1esc x296c &g2esc x2a6c &g3esc x2b6c
   &code 0
   NU SH SX EX ET EQ AK BL BS HT LF VT FF CR SO SI
   DL D1 D2 D3 D4 NK SY EB CN EM SB EC FS GS RS US
   SP ! " Nb Cu % & ' ( ) * + , - . / 0 1 2 3 4 5 6 7 8 9 : ; < = > ?
   At A B C D E F G H I J K L M N O P Q R S T U V W X Y Z <( // )> '> _
   '! a b c d e f g h i j k l m n o p q r s t u v w x y z (! !! !) '- DT
   PA HO BH NH IN NL SA ES HS HJ VS PD PU RI S2 S3
   DC P1 P2 TS CC MW SG EG SS GC SC CI ST OC PM AC
   NS !I Ct Pd DO Ye ?? SE ?? '6 "6 << <- -! -> -v
   DG +- 2S 3S *X My PI .M -: '9 "9 >> 14 12 34 ?I
   ?? "! "' "> "? "- "( ". ": ?? "0 ", "_ "" "; "<
   -M 1S Rg Co TM Md ?? ?? ?? ?? ?? ?? 18 38 58 78
   Om AE D- -a H/ ?? IJ L. L/ O/ OE -o TH T/ NG 'n
   kk ae d/ d- h/ i. ij l. l/ o/ oe ss th t/ ng ??
   &comb2 "' SP '' a a' A A' e e' E E' i i' I I' o o' O O' u u' U U'
                   y y' Y Y' c c' C C' l l' L L' n n' N N' r r' R R'
                   s s' S S' z z' Z Z'
   &comb2 "( SP '( a a( A A( g g( G G(                     u u( U U(
   &comb2 "< SP '< c c< C C< d d< D D< e e< E E< l l< L L< n n< N N<
                   r r< R R< s s< S S< t t< T T< z z< Z Z<
   &comb2 ", SP ', c c, C C, g g, G G, k k, K K, l l, L L, n n, N N,
                   r r, R R, s s, S S, t t, T T,
   &comb2 ">       a a> A A> e e> E E> i i> I I> o o> O O> u u> U U>
                   y y> Y Y> c c> C C> g g> G G> h h> H H> j j> J J>
                   s s> S S> w w> W W>
   &comb2 ": SP ': a a: A A: e e: E E: i i: I I: o o: O O: u u: U U:
                   y y: Y Y:
   &comb2 ". SP '. c c. C C. e e. E E. g g. G G.      I I. z z. Z Z.
   &comb2 "" SP '"                               o o" O O" u u" U U"
   &comb2 "!       a a! A A! e e! E E! i i! I I! o o! O O! u u! U U!
   &comb2 "-       a a- A A- e e- E E- i i- I I- o o- O O- u u- U U-
   &comb2 "; SP '; a a; A A; e e; E E; i i; I I; u u; U U;
   &comb2 "0 SP '0 a aa A AA                               u u0 U U0
   &comb2 "? SP '? a a? A A? n n? N N? i i? I I? o o? O O? u u? U U?

   &charset JIS_C6229-1984-a
   &rem source: ECMA registry
   &alias iso-ir-91
   &g0esc x286d &g1esc x296d &g2esc x2a6d &g3esc x2b6d
   &alias jp-ocr-a
   &code 0
   NU SH SX EX ET EQ AK BL BS HT LF VT FF CR SO SI
   DL D1 D2 D3 D4 NK SY EB CN EM SB EC FS GS RS US
   SP ?? " Pd DO % & ' ( ) * + , - . / 0 1 2 3 4 5 6 7 8 9 : ; 1h = 3h ?
   ?? A B C D E F G H I J K L M N O P Q R S T U V W X Y Z ?? Ye 2h '> _
   ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ??
   ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? 4h ?? ?? DT

   &charset JIS_C6229-1984-b
   &rem source: ECMA registry
   &alias iso-ir-92
```

```
  &alias ISO646-JP-OCR-B
  &g0esc x286e &g1esc x296e &g2esc x2a6e &g3esc x2b6e
  &alias jp-ocr-b
  &code 0
  NU SH SX EX ET EQ AK BL BS HT LF VT FF CR SO SI
  DL D1 D2 D3 D4 NK SY EB CN EM SB EC FS GS RS US
  SP ! " Nb DO % & ’ ( ) * + , - . / 0 1 2 3 4 5 6 7 8 9 : ; < = > ?
  At A B C D E F G H I J K L M N O P Q R S T U V W X Y Z </ Ye /> ’> _
  ?? a b c d e f g h i j k l m n o p q r s t u v w x y z (! !! !) ?? DT

  &charset JIS_C6229-1984-b-add
  &rem source: ECMA registry
  &alias iso-ir-93
  &g0esc x286f &g1esc x296f &g2esc x2a6f &g3esc x2b6f
  &alias jp-ocr-b-add
  &code 0
  NU SH SX EX ET EQ AK BL BS HT LF VT FF CR SO SI
  DL D1 D2 D3 D4 NK SY EB CN EM SB EC FS GS RS US
  SP ?? ?? Pd Cu // ?? SE ?? ?? ?? ?? ?? ?? ?? ??
  ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ??
  ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ??
  ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ??
  ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ??
  ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? DT

  &charset JIS_C6229-1984-hand
  &rem source: ECMA registry
  &alias iso-ir-94
  &g0esc x2870 &g1esc x2970 &g2esc x2a70 &g3esc x2b70
  &alias jp-ocr-hand
  &code 0
  NU SH SX EX ET EQ AK BL BS HT LF VT FF CR SO SI
  DL D1 D2 D3 D4 NK SY EB CN EM SB EC FS GS RS US
  SP ! " Nb DO % & ’ ( ) * + , - . / 0 1 2 3 4 5 6 7 8 9 : ; < = > ?
  At A B C D E F G H I J K L M N O P Q R S T U V W X Y Z </ Ye /> ’> _
  ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ??
  ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? !! ?? ?? DT

  &charset JIS_C6229-1984-hand-add
  &rem source: ECMA registry
  &alias iso-ir-95
  &g0esc x2871 &g1esc x2971 &g2esc x2a71 &g3esc x2b71
  &alias jp-ocr-hand-add
  &code 0
  NU SH SX EX ET EQ AK BL BS HT LF VT FF CR SO SI
  DL D1 D2 D3 D4 NK SY EB CN EM SB EC FS GS RS US
  SP ?? ?? ?? ?? // ?? ?? ?? ?? ?? ?? ?? ?? ?? ??
  ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ??
  ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ??
  ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ??
  ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ??
  ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? DT
```

```
  &charset JIS_C6229-1984-kana
  &rem source: ECMA registry
  &alias iso-ir-96
  &g0esc x2872 &g1esc x2972 &g2esc x2a72 &g3esc x2b72
  &code 0
  NU SH SX EX ET EQ AK BL BS HT LF VT FF CR SO SI
  DL D1 D2 D3 D4 NK SY EB CN EM SB EC FS GS RS US
  SP ?? <' >' ?? ?? Wo ?? ?? ?? ?? ?? ?? ?? ?? ??
  -6 A6 I6 U6 E6 O6 Ka Ki Ku Ke Ko Sa Si Su Se So
  Ta Ti Tu Te To Na Ni Nu Ne No Ha Hi Hu He Ho Ma
  Mi Mu Me Mo Ya Yu Yo Ra Ri Ru Re Ro Wa N6 "5 05
  ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ??
  ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? DT

  &charset ISO_2033-1983
  &rem source: ECMA registry
  &alias iso-ir-98
  &alias e13b
  &g0esc x2873 &g1esc x2973 &g2esc x2a73 &g3esc x2b73
  &code 0
  NU SH SX EX ET EQ AK BL BS HT LF VT FF CR SO SI
  DL D1 D2 D3 D4 NK SY EB CN EM SB EC FS GS RS US
  SP ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ??
  0  1  2  3  4  5  6  7  8  9  1j 2j 3j 4j ?? ??
  ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ??
  ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ??
  ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ??
  ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? DT

  &charset ANSI_X3.110-1983
  &rem source: ECMA registry
  &alias iso-ir-99
  &alias CSA_T500-1983
  &alias NAPLPS
  &g0esc x2874 &g1esc x2974 &g2esc x2a74 &g3esc x2b74
  &code 0
  NU SH SX EX ET EQ AK BL BS HT LF VT FF CR SO SI
  DL D1 D2 D3 D4 NK SY EB CN EM SB EC FS GS RS US
  SP ! " ?? ?? % & ' ( ) * + , - . / 0 1 2 3 4 5 6 7 8 9 : ; < = > ?
  At A B C D E F G H I J K L M N O P Q R S T U V W X Y Z <( // )> '> _
  '! a b c d e f g h i j k l m n o p q r s t u v w x y z (! !! !) '? DT
  PA HO BH NH IN NL SA ES HS HJ VS PD PU RI S2 S3
  DC P1 P2 TS CC MW SG EG SS GC SC CI ST OC PM AC
  NS !I Ct Pd DO Ye Nb SE Cu '6 "6 << <- -! -> -v
  DG +- 2S 3S *X My PI .M -: '9 "9 >> 14 12 34 ?I
  ?? "! "' "> "? "- "( ". ": "/ "0 ", "_ "" "; "<
  -M 1S Rg Co TM Md HH VV FD BD Fd Bd 18 38 58 78
  Om AE D- -a H/ VH IJ L. L/ O/ OE -o TH T/ NG 'n
  kk ae d/ d- h/ i. ij l. l/ o/ oe ss th t/ ng ??
  &comb2 "' SP '' a a' A A' e e' E E' i i' I I' o o' O O' u u' U U'
                  y y' Y Y' c c' C C' l l' L L' n n' N N' r r' R R'
                  s s' S S' z z' Z Z'
  &comb2 "( SP '( a a( A A( g g( G G(                     u u( U U(
```

```
  &comb2 "< SP '< c c< C C< d d< D D< e e< E E< l l< L L< n n< N N<
                  r r< R R< s s< S S< t t< T T< z z< Z Z<
  &comb2 ", SP ', c c, C C, g g, G G, k k, K K, l l, L L, n n, N N,
                  r r, R R, s s, S S, t t, T T,
  &comb2 ">       a a> A A> e e> E E> i i> I I> o o> O O> u u> U U>
                  y y> Y Y> c c> C C> g g> G G> h h> H H> j j> J J>
                  s s> S S> w w> W W>
  &comb2 ": SP ': a a: A A: e e: E E: i i: I I: o o: O O: u u: U U:
                  y y: Y Y:
  &comb2 ". SP '. c c. C C. e e. E E. g g. G G.      I I. z z. Z Z.
  &comb2 "" SP '"                               o o" O O" u u" U U"
  &comb2 "!       a a! A A! e e! E E! i i! I I! o o! O O! u u! U U!
  &comb2 "- SP '- a a- A A- e e- E E- i i- I I- o o- O O- u u- U U-
  &comb2 "; SP '; a a; A A; e e; E E; i i; I I; u u; U U;
  &comb2 "0 SP '0 a aa A AA                               u u0 U U0
  &comb2 "?       a a? A A? n n? N N? i i? I I? o o? O O? u u? U U?

  &charset ISO_8859-1:1987
  &rem source: ECMA registry
  &alias iso-ir-100
  &g1esc x2d41 &g2esc x2e41 &g3esc x2f41
  &alias ISO_8859-1
  &alias ISO-8859-1
  &alias latin1
  &alias l1
  &alias IBM819
  &alias CP819
  &code 0
  NU SH SX EX ET EQ AK BL BS HT LF VT FF CR SO SI
  DL D1 D2 D3 D4 NK SY EB CN EM SB EC FS GS RS US
  SP ! " Nb DO % & ' ( ) * + , - . / 0 1 2 3 4 5 6 7 8 9 : ; < = > ?
  At A B C D E F G H I J K L M N O P Q R S T U V W X Y Z <( // )> '> _
  '! a b c d e f g h i j k l m n o p q r s t u v w x y z (! !! !) '? DT
  PA HO BH NH IN NL SA ES HS HJ VS PD PU RI S2 S3
  DC P1 P2 TS CC MW SG EG SS GC SC CI ST OC PM AC
  NS !I Ct Pd Cu Ye BB SE ': Co -a << NO -- Rg '-
  DG +- 2S 3S '' My PI .M ', 1S -o >> 14 12 34 ?I
  A! A' A> A? A: AA AE C, E! E' E> E: I! I' I> I:
  D- N? O! O' O> O? O: *X O/ U! U' U> U: Y' TH ss
  a! a' a> a? a: aa ae c, e! e' e> e: i! i' i> i:
  d- n? o! o' o> o? o: -: o/ u! u' u> u: y' th y:

  &charset ISO_8859-2:1987
  &rem source: ECMA registry
  &alias iso-ir-101
  &g1esc x2d42 &g2esc x2e42 &g3esc x2f42
  &alias ISO_8859-2
  &alias ISO-8859-2
  &alias latin2
  &alias l2
  &code 0
  NU SH SX EX ET EQ AK BL BS HT LF VT FF CR SO SI
  DL D1 D2 D3 D4 NK SY EB CN EM SB EC FS GS RS US
```

```
   SP ! " Nb DO % & ' ( ) * + , - . / 0 1 2 3 4 5 6 7 8 9 : ; < = > ?
   At A B C D E F G H I J K L M N O P Q R S T U V W X Y Z <( // )> '> _
   '! a b c d e f g h i j k l m n o p q r s t u v w x y z (! !! !) '? DT
   PA HO BH NH IN NL SA ES HS HJ VS PD PU RI S2 S3
   DC P1 P2 TS CC MW SG EG SS GC SC CI ST OC PM AC
   NS A; '( L/ Cu L< S' SE ': S< S, T< Z' -- Z< Z.
   DG a; '; l/ '' l< s' '< ', s< s, t< z' '" z< z.
   R' A' A> A( A: L' C' C, C< E' E; E: E< I' I> D<
   D/ N' N< O' O> O" O: *X R< U0 U' U" U: Y' T, ss
   r' a' a> a( a: l' c' c, c< e' e; e: e< i' i> d<
   d/ n' n< o' o> o" o: -: r< u0 u' u" u: y' t, '.

   &charset T.61-7bit
   &rem source: ECMA registry
   &alias iso-ir-102
   &g0esc x2875 &g1esc x2975 &g2esc x2a75 &g3esc x2b75
   &code 0
   NU SH SX EX ET EQ AK BL BS HT LF VT FF CR SO SI
   DL D1 D2 D3 D4 NK SY EB CN EM SB EC FS GS RS US
   SP ! " Nb Cu % & ' ( ) * + , - . / 0 1 2 3 4 5 6 7 8 9 : ; < = > ?
   At A B C D E F G H I J K L M N O P Q R S T U V W X Y Z <( ?? )> ?? _
   ?? a b c d e f g h i j k l m n o p q r s t u v w x y z ?? !! ?? ?? DT

   &charset T.61-8bit
   &alias T.61
   &rem source: ECMA registry
   &alias iso-ir-103
   &g0esc x2876 &g1esc x2976 &g2esc x2a76 &g3esc x2b76
   &code 0
   NU SH SX EX ET EQ AK BL BS HT LF VT FF CR SO SI
   DL D1 D2 D3 D4 NK SY EB CN EM SB EC FS GS RS US
   SP ! " ?? ?? % & ' ( ) * + , - . / 0 1 2 3 4 5 6 7 8 9 : ; < = > ?
   At A B C D E F G H I J K L M N O P Q R S T U V W X Y Z <( ?? )> ?? _
   ?? a b c d e f g h i j k l m n o p q r s t u v w x y z ?? !! ?? ?? DT
   PA HO BH NH IN NL SA ES HS HJ VS PD PU RI S2 S3
   DC P1 P2 TS CC MW SG EG SS GC SC CI ST OC PM AC
   NS !I Ct Pd DO Ye Nb SE Cu ?? ?? << ?? ?? ?? ??
   DG +- 2S 3S *X My PI .M -: ?? ?? >> 14 12 34 ?I
   ?? "! "' "> "? "- "( ". ": ?? "0 ", "_ "" "; "<
   ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ??
   Om AE D- -a H/ ?? IJ L. L/ O/ OE -o TH T/ NG 'n
   kk ae d/ d- h/ i. ij l. l/ o/ oe ss th t/ ng ??
   &comb2 "' SP '' a a' A A' e e' E E' i i' I I' o o' O O' u u' U U'
                   y y' Y Y' c c' C C' l l' L L' n n' N N' r r' R R'
                   s s' S S' z z' Z Z'
   &comb2 "( SP '( a a( A A( g g( G G(                     u u( U U(
   &comb2 "< SP '< c c< C C< d d< D D< e e< E E< l l< L L< n n< N N<
                   r r< R R< s s< S S< t t< T T< z z< Z Z<
   &comb2 ", SP ', c c, C C, g g, G G, k k, K K, l l, L L, n n, N N,
                   r r, R R, s s, S S, t t, T T,
   &comb2 ">       a a> A A> e e> E E> i i> I I> o o> O O> u u> U U>
                   y y> Y Y> c c> C C> g g> G G> h h> H H> j j> J J>
                   s s> S S> w w> W W>
```

```
  &comb2 ": SP ': a a: A A: e e: E E: i i: I I: o o: O O: u u: U U:
                  y y: Y Y:
  &comb2 ". SP '. c c. C C. e e. E E. g g. G G.      I I. z z. Z Z.
  &comb2 "" SP '"                               o o" O O" u u" U U"
  &comb2 "!       a a! A A! e e! E E! i i! I I! o o! O O! u u! U U!
  &comb2 "- SP '- a a- A A- e e- E E- i i- I I- o o- O O- u u- U U-
  &comb2 "; SP '; a a; A A; e e; E E; i i; I I; u u; U U;
  &comb2 "0 SP '0 a aa A AA                               u u0 U U0
  &comb2 "?       a a? A A? n n? N N? i i? I I? o o? O O? u u? U U?

  &charset ISO_8859-3:1988
  &rem source: ECMA registry
  &alias iso-ir-109
  &g1esc x2d43 &g2esc x2e43 &g3esc x2f43
  &alias ISO_8859-3
  &alias ISO-8859-3
  &alias latin3
  &alias l3
  &code 0
  NU SH SX EX ET EQ AK BL BS HT LF VT FF CR SO SI
  DL D1 D2 D3 D4 NK SY EB CN EM SB EC FS GS RS US
  SP ! " Nb DO % & ' ( ) * + , - . / 0 1 2 3 4 5 6 7 8 9 : ; < = > ?
  At A B C D E F G H I J K L M N O P Q R S T U V W X Y Z <( // )> '> _
  '! a b c d e f g h i j k l m n o p q r s t u v w x y z (! !! !) '? DT
  PA HO BH NH IN NL SA ES HS HJ VS PD PU RI S2 S3
  DC P1 P2 TS CC MW SG EG SS GC SC CI ST OC PM AC
  NS H/ '( Pd Cu ?? H> SE ': I. S, G( J> -- ?? Z.
  DG h/ 2S 3S '' My h> .M ', i. s, g( j> 12 ?? z.
  A! A' A> ?? A: C. C> C, E! E' E> E: I! I' I> I:
  ?? N? O! O' O> G. O: *X G> U! U' U> U: U( S> ss
  a! a' a> ?? a: c. c> c, e! e' e> e: i! i' i> i:
  ?? n? o! o' o> g. o: -: g> u! u' u> u: u( s> '.

  &charset ISO_8859-4:1988
  &rem source: ECMA registry
  &alias iso-ir-110
  &g1esc x2d44 &g2esc x2e44 &g3esc x2f44
  &alias ISO_8859-4
  &alias ISO-8859-4
  &alias latin4
  &alias l4
  &code 0
  NU SH SX EX ET EQ AK BL BS HT LF VT FF CR SO SI
  DL D1 D2 D3 D4 NK SY EB CN EM SB EC FS GS RS US
  SP ! " Nb DO % & ' ( ) * + , - . / 0 1 2 3 4 5 6 7 8 9 : ; < = > ?
  At A B C D E F G H I J K L M N O P Q R S T U V W X Y Z <( // )> '> _
  '! a b c d e f g h i j k l m n o p q r s t u v w x y z (! !! !) '? DT
  PA HO BH NH IN NL SA ES HS HJ VS PD PU RI S2 S3
  DC P1 P2 TS CC MW SG EG SS GC SC CI ST OC PM AC
  NS A; kk R, Cu I? L, SE ': S< E- G, T/ -- Z< '-
  DG a; '; r, '' i? l, '< ', s< e- g, t/ NG z< ng
  A- A' A> A? A: AA AE I; C< E' E; E: E. I' I> I-
  D/ N, O- K, O> O? O: *X O/ U; U' U> U: U? U- ss
```

```
  a- a' a> a? a: aa ae i; c< e' e; e: e. i' i> i-
  d/ n, o- k, o> o? o: -: o/ u; u' u> u: u? u- '.

  &charset ECMA-cyrillic
  &rem source: ECMA registry
  &alias iso-ir-111
  &g1esc x2d40 &g2esc x2e40 &g3esc x2f40
  &code 0
  NU SH SX EX ET EQ AK BL BS HT LF VT FF CR SO SI
  DL D1 D2 D3 D4 NK SY EB CN EM SB EC FS GS RS US
  SP ! " Nb DO % & ' ( ) * + , - . / 0 1 2 3 4 5 6 7 8 9 : ; < = > ?
  At A B C D E F G H I J K L M N O P Q R S T U V W X Y Z <( // )> '> _
  '! a b c d e f g h i j k l m n o p q r s t u v w x y z (! !! !) '? DT
  PA HO BH NH IN NL SA ES HS HJ VS PD PU RI S2 S3
  DC P1 P2 TS CC MW SG EG SS GC SC CI ST OC PM AC
  NS IO D% G% IE DS II YI J% LJ NJ Ts KJ -- V% DZ
  N0 io d% g% ie ds ii yi j% lj nj ts kj Cu v% dz
  A= B= V= G= D= E= Z% Z= I= J= K= L= M= N= O= P=
  R= S= T= U= F= H= C= C% S% Sc =" Y= %" JE JU JA
  a= b= v= g= d= e= z% z= i= j= k= l= m= n= o= p=
  r= s= t= u= f= h= c= c% s% sc =' y= %' je ju ja

  &charset CSA_Z243.4-1985-1
  &rem source: ECMA registry
  &alias iso-ir-121
  &g0esc x2877 &g1esc x2977 &g2esc x2a77 &g3esc x2b77
  &alias ISO646-CA
  &alias csa7-1
  &alias ca
  &code 0
  NU SH SX EX ET EQ AK BL BS HT LF VT FF CR SO SI
  DL D1 D2 D3 D4 NK SY EB CN EM SB EC FS GS RS US
  SP ! " Nb DO % & ' ( ) * + , - . / 0 1 2 3 4 5 6 7 8 9 : ; < = > ?
  a! A B C D E F G H I J K L M N O P Q R S T U V W X Y Z a> c, e> i> _
  o> a b c d e f g h i j k l m n o p q r s t u v w x y z e' u! e! u> DT

  &charset CSA_Z243.4-1985-2
  &rem source: ECMA registry
  &alias iso-ir-122
  &alias ISO646-CA2
  &g0esc x2878 &g1esc x2978 &g2esc x2a78 &g3esc x2b78
  &alias csa7-2
  &code 0
  NU SH SX EX ET EQ AK BL BS HT LF VT FF CR SO SI
  DL D1 D2 D3 D4 NK SY EB CN EM SB EC FS GS RS US
  SP ! " Nb DO % & ' ( ) * + , - . / 0 1 2 3 4 5 6 7 8 9 : ; < = > ?
  a! A B C D E F G H I J K L M N O P Q R S T U V W X Y Z a> c, e> E' _
  o> a b c d e f g h i j k l m n o p q r s t u v w x y z e' u! e! u> DT

  &charset CSA_Z243.4-1985-gr
  &rem source: ECMA registry
  &alias iso-ir-123
  &g1esc x2d45 &g2esc x2e45 &g3esc x2f45
```

```
  &code 0
  NU SH SX EX ET EQ AK BL BS HT LF VT FF CR SO SI
  DL D1 D2 D3 D4 NK SY EB CN EM SB EC FS GS RS US
  SP ! " Nb DO % & ' ( ) * + , - . / 0 1 2 3 4 5 6 7 8 9 : ; < = > ?
  At A B C D E F G H I J K L M N O P Q R S T U V W X Y Z <( // )> '> _
  '! a b c d e f g h i j k l m n o p q r s t u v w x y z (! !! !) '? DT
  PA HO BH NH IN NL SA ES HS HJ VS PD PU RI S2 S3
  DC P1 P2 TS CC MW SG EG SS GC SC CI ST OC PM AC
  NS !I ': Pd Ct Ye +- '' (S )S 12 +S ', -- .M -S
  0S 1S 2S 3S 4S 5S 6S 7S 8S 9S 14 34 <= != >= ?I
  A! A' A> C, E! E' E> E: I' I> I: N? O' O> U! U'
  U> U: Rg SE PI m* -a -o '6 '9 "6 "9 << >> DG BB
  a! a' a> c, e! e' e> e: i' i> i: n? o' o> u! u'
  u> u: Co hh vv ur ul dl dr vr uh vl dh vh NO FB

  &charset ISO_8859-7:1987
  &rem source: ECMA registry
  &alias iso-ir-126
  &g1esc x2d46 &g2esc x2e46 &g3esc x2f46
  &alias ISO_8859-7
  &alias ISO-8859-7
  &alias ELOT_928
  &alias ECMA-118
  &alias greek
  &alias greek8
  &code 0
  NU SH SX EX ET EQ AK BL BS HT LF VT FF CR SO SI
  DL D1 D2 D3 D4 NK SY EB CN EM SB EC FS GS RS US
  SP ! " Nb DO % & ' ( ) * + , - . / 0 1 2 3 4 5 6 7 8 9 : ; < = > ?
  At A B C D E F G H I J K L M N O P Q R S T U V W X Y Z <( // )> '> _
  '! a b c d e f g h i j k l m n o p q r s t u v w x y z (! !! !) '? DT
  PA HO BH NH IN NL SA ES HS HJ VS PD PU RI S2 S3
  DC P1 P2 TS CC MW SG EG SS GC SC CI ST OC PM AC
  NS 9' '9 Pd ?? ?? BB SE ': Co ?? << NO -- ?? -M
  DG +- 2S 3S '' '% A% .M E% Y% I% >> O% 12 U% W%
  i3 A* B* G* D* E* Z* Y* H* I* K* L* M* N* C* O*
  P* R* ?? S* T* U* F* X* Q* W* J* V* a% e% y% i%
  u3 a* b* g* d* e* z* y* h* i* k* l* m* n* c* o*
  p* r* *s s* t* u* f* x* q* w* j* v* o% u% w% ??

  &charset ISO_8859-6:1987
  &rem source: ECMA registry
  &alias iso-ir-127
  &g1esc x2d47 &g2esc x2e47 &g3esc x2f47
  &alias ISO_8859-6
  &alias ISO-8859-6
  &alias ECMA-114
  &alias ASMO-708
  &alias arabic
  &code 0
  NU SH SX EX ET EQ AK BL BS HT LF VT FF CR SO SI
  DL D1 D2 D3 D4 NK SY EB CN EM SB EC FS GS RS US
  SP ! " Nb DO % & ' ( ) * + , - . / 0 1 2 3 4 5 6 7 8 9 : ; < = > ?
```

```
  At A B C D E F G H I J K L M N O P Q R S T U V W X Y Z <( // )> '> _
  '! a b c d e f g h i j k l m n o p q r s t u v w x y z (! !! !) '? DT
  PA HO BH NH IN NL SA ES HS HJ VS PD PU RI S2 S3
  DC P1 P2 TS CC MW SG EG SS GC SC CI ST OC PM AC
  NS ?? ?? ?? Cu ?? ?? ?? ?? ?? ?? ?? ,+ -- ?? ??
  ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ;+ ?? ?? ?? ?+
  ?? H' aM aH wH ah yH a+ b+ tm t+ tk g+ hk x+ d+
  dk r+ z+ s+ sn c+ dd tj zH e+ i+ ?? ?? ?? ?? ??
  ++ f+ q+ k+ l+ m+ n+ h+ w+ j+ y+ :+ "+ =+ /+ '+
  1+ 3+ 0+ ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ??

  &charset T.101-G2
  &rem source: ECMA registry
  &alias iso-ir-128
  &g0esc x287c &g1esc x297c &g2esc x2a7c &g3esc x2b7c
  &code 0
  NU SH SX EX ET EQ AK BL BS HT LF VT FF CR SO SI
  DL D1 D2 D3 D4 NK SY EB CN EM SB EC FS GS RS US
  SP ! " ?? ?? % & ' ( ) * + , - . / 0 1 2 3 4 5 6 7 8 9 : ; < = > ?
  At A B C D E F G H I J K L M N O P Q R S T U V W X Y Z <( // )> '> _
  '! a b c d e f g h i j k l m n o p q r s t u v w x y z (! !! !) '? DT
  PA HO BH NH IN NL SA ES HS HJ VS PD PU RI S2 S3
  DC P1 P2 TS CC MW SG EG SS GC SC CI ST OC PM AC
  NS !I Ct Pd DO Ye Nb SE Cu '6 "6 << <- -! -> -v
  DG +- 2S 3S *X My PI .M -: '9 "9 >> 14 12 34 ?I
  ?? "! "' "> "? "- "( ". ": "/ "0 ", "_ "" "; "<
  -M 1S Rg Co TM Md HH VV FD BD Fd Bd 18 38 58 78
  Om AE D- -a H/ VH IJ L. L/ O/ OE -o TH T/ NG 'n
  kk ae d/ d- h/ i. ij l. l/ o/ oe ss th t/ ng ??
  &comb2 "' SP '' a a' A A' e e' E E' i i' I I' o o' O O' u u' U U'
                  y y' Y Y' c c' C C' l l' L L' n n' N N' r r' R R'
                  s s' S S' z z' Z Z'
  &comb2 "( SP '( a a( A A( g g( G G(                     u u( U U(
  &comb2 "< SP '< c c< C C< d d< D D< e e< E E< l l< L L< n n< N N<
                  r r< R R< s s< S S< t t< T T< z z< Z Z<
  &comb2 ", SP ', c c, C C, g g, G G, k k, K K, l l, L L, n n, N N,
                  r r, R R, s s, S S, t t, T T,
  &comb2 ">       a a> A A> e e> E E> i i> I I> o o> O O> u u> U U>
                  y y> Y Y> c c> C C> g g> G G> h h> H H> j j> J J>
                  s s> S S> w w> W W>
  &comb2 ": SP ': a a: A A: e e: E E: i i: I I: o o: O O: u u: U U:
                  y y: Y Y:
  &comb2 ". SP '. c c. C C. e e. E E. g g. G G.      I I. z z. Z Z.
  &comb2 "" SP '"                               o o" O O" u u" U U"
  &comb2 "!       a a! A A! e e! E E! i i! I I! o o! O O! u u! U U!
  &comb2 "- SP '- a a- A A- e e- E E- i i- I I- o o- O O- u u- U U-
  &comb2 "; SP '; a a; A A; e e; E E; i i; I I; u u; U U;
  &comb2 "0 SP '0 a aa A AA                               u u0 U U0
  &comb2 "?       a a? A A? n n? N N? i i? I I? o o? O O? u u? U U?

  &charset ISO_8859-8:1988
  &rem source: ECMA registry
  &alias iso-ir-138
```

```
&g1esc x2d48 &g2esc x2e48 &g3esc x2f48
&alias ISO_8859-8
&alias ISO-8859-8
&alias hebrew
&code 0
NU SH SX EX ET EQ AK BL BS HT LF VT FF CR SO SI
DL D1 D2 D3 D4 NK SY EB CN EM SB EC FS GS RS US
SP ! " Nb DO % & ' ( ) * + , - . / 0 1 2 3 4 5 6 7 8 9 : ; < = > ?
At A B C D E F G H I J K L M N O P Q R S T U V W X Y Z <( // )> '> _
'! a b c d e f g h i j k l m n o p q r s t u v w x y z (! !! !) '? DT
PA HO BH NH IN NL SA ES HS HJ VS PD PU RI S2 S3
DC P1 P2 TS CC MW SG EG SS GC SC CI ST OC PM AC
NS ?? Ct Pd Cu Ye BB SE ': Co *X << NO -- Rg '-
DG +- 2S 3S '' My PI .M ', 1S -: >> 14 12 34 ??
?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ??
?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? =2
A+ B+ G+ D+ H+ W+ Z+ X+ Tj J+ K% K+ L+ M% M+ N%
N+ S+ E+ P% P+ Zj ZJ Q+ R+ Sh T+ ?? ?? ?? ?? ??

&charset CSN_369103
&rem source: ECMA registry
&alias iso-ir-139
&g1esc x2d49 &g2esc x2e49 &g3esc x2f49
&code 0
NU SH SX EX ET EQ AK BL BS HT LF VT FF CR SO SI
DL D1 D2 D3 D4 NK SY EB CN EM SB EC FS GS RS US
SP ! " Nb Cu % & ' ( ) * + , - . / 0 1 2 3 4 5 6 7 8 9 : ; < = > ?
At A B C D E F G H I J K L M N O P Q R S T U V W X Y Z <( // )> '> _
'! a b c d e f g h i j k l m n o p q r s t u v w x y z (! !! !) '? DT
PA HO BH NH IN NL SA ES HS HJ VS PD PU RI S2 S3
DC P1 P2 TS CC MW SG EG SS GC SC CI ST OC PM AC
NS A; '( L/ DO L< S' SE ': S< S, T< Z' -- Z< Z.
DG a; '; l/ '' l< s' '< ', s< s, t< z' '" z< z.
R' A' A> A( A: L' C' C, C< E' E; E: E< I' I> D<
D/ N' N< O' O> O" O: *X R< U0 U' U" U: Y' T, ss
r' a' a> a( a: l' c' c, c< e' e; e: e< i' i> d<
d/ n' n< o' o> o" o: -: r< u0 u' u" u: y' t, '.

&charset JUS_I.B1.002
&rem source: ECMA registry
&alias iso-ir-141
&g0esc x287a &g1esc x297a &g2esc x2a7a &g3esc x2b7a
&alias ISO646-YU
&alias js
&alias yu
&code 0
NU SH SX EX ET EQ AK BL BS HT LF VT FF CR SO SI
DL D1 D2 D3 D4 NK SY EB CN EM SB EC FS GS RS US
SP ! " Nb DO % & ' ( ) * + , - . / 0 1 2 3 4 5 6 7 8 9 : ; < = > ?
Z< A B C D E F G H I J K L M N O P Q R S T U V W X Y Z S< D/ C' C< _
z< a b c d e f g h i j k l m n o p q r s t u v w x y z s< d/ c' c< DT

&charset ISO_6937-2-add
```

```
  &rem source: ECMA registry and ISO 6937-2:1983
  &alias iso-ir-142
  &g1esc x2d4a &g2esc x2e4a &g3esc x2f4a
  &code 0
  NU SH SX EX ET EQ AK BL BS HT LF VT FF CR SO SI
  DL D1 D2 D3 D4 NK SY EB CN EM SB EC FS GS RS US
  SP ! " Nb Cu % & ' ( ) * + , - . / 0 1 2 3 4 5 6 7 8 9 : ; < = > ?
  At A B C D E F G H I J K L M N O P Q R S T U V W X Y Z <( // )> '> _
  '! a b c d e f g h i j k l m n o p q r s t u v w x y z (! !! !) '? DT
  PA HO BH NH IN NL SA ES HS HJ VS PD PU RI S2 S3
  DC P1 P2 TS CC MW SG EG SS GC SC CI ST OC PM AC
  NS !I Ct Pd DO Ye ?? SE ?? '6 "6 << <- -! -> -v
  DG +- 2S 3S *X My PI .M -: '9 "9 >> 14 12 34 ?I
  ?? "! "' "> "? "- "( ". ": ?? "0 ", "_ "" "; "<
  -M 1S Rg Co TM Md NO BB ?? ?? ?? ?? 18 38 58 78
  Om AE D- -a H/ ?? IJ L. L/ O/ OE -o TH T/ NG 'n
  kk ae d/ d- h/ i. ij l. l/ o/ oe ss th t/ ng --
  &comb2 "' SP '' a a' A A' e e' E E' i i' I I' o o' O O' u u' U U'
                  y y' Y Y' c c' C C' l l' L L' n n' N N' r r' R R'
                  s s' S S' z z' Z Z'
  &comb2 "( SP '( a a( A A( g g( G G(                     u u( U U(
  &comb2 "< SP '< c c< C C< d d< D D< e e< E E< l l< L L< n n< N N<
                  r r< R R< s s< S S< t t< T T< z z< Z Z<
  &comb2 ", SP ', c c, C C, g g, G G, k k, K K, l l, L L, n n, N N,
                  r r, R R, s s, S S, t t, T T,
  &comb2 ">       a a> A A> e e> E E> i i> I I> o o> O O> u u> U U>
                  y y> Y Y> c c> C C> g g> G G> h h> H H> j j> J J>
                  s s> S S> w w> W W>
  &comb2 ": SP ': a a: A A: e e: E E: i i: I I: o o: O O: u u: U U:
                  y y: Y Y:
  &comb2 ". SP '. c c. C C. e e. E E. g g. G G.      I I. z z. Z Z.
  &comb2 "" SP '"                               o o" O O" u u" U U"
  &comb2 "!       a a! A A! e e! E E! i i! I I! o o! O O! u u! U U!
  &comb2 "- SP '- a a- A A- e e- E E- i i- I I- o o- O O- u u- U U-
  &comb2 "; SP '; a a; A A; e e; E E; i i; I I; u u; U U;
  &comb2 "0 SP '0 a aa A AA                               u u0 U U0
  &comb2 "?       a a? A A? n n? N N? i i? I I? o o? O O? u u? U U?

  &charset IEC_P27-1
  &rem source: ECMA registry
  &alias iso-ir-143
  &g1esc x2d4b &g2esc x2e4b &g3esc x2f4b
  &code 0
  NU SH SX EX ET EQ AK BL BS HT LF VT FF CR SO SI
  DL D1 D2 D3 D4 NK SY EB CN EM SB EC FS GS RS US
  SP ! " Nb DO % & ' ( ) * + , - . / 0 1 2 3 4 5 6 7 8 9 : ; < = > ?
  At A B C D E F G H I J K L M N O P Q R S T U V W X Y Z <( // )> '> _
  '! a b c d e f g h i j k l m n o p q r s t u v w x y z (! !! !) '? DT
  PA HO BH NH IN NL SA ES HS HJ VS PD PU RI S2 S3
  DC P1 P2 TS CC MW SG EG SS GC SC CI ST OC PM AC
  '< =3 AN OR (U )U (C )C <= => .: :. (- -) (_ )_
  In Io 00 NB dP ?1 ?2 ?- ?= =< != >= <> NO FA TE
  A+ OS PP G* D* -T -V -L H* </ /> L* 1' 2' C* -+
```

```
P* 2S S* *X 3S U* F* .M Q* W* /0 >V RT f( 0( +-
DG a* b* g* d* e* z* y* h* i* k* l* m* n* c* %0
p* r* s* -: t* u* f* x* q* w* /- <- -! -> -v '-

&charset ISO_8859-5:1988
&rem source: ECMA registry
&alias iso-ir-144
&g1esc x2d4c &g2esc x2e4c &g3esc x2f4c
&alias ISO_8859-5
&alias ISO-8859-5
&alias cyrillic
&code 0
NU SH SX EX ET EQ AK BL BS HT LF VT FF CR SO SI
DL D1 D2 D3 D4 NK SY EB CN EM SB EC FS GS RS US
SP ! " Nb DO % & ' ( ) * + , - . / 0 1 2 3 4 5 6 7 8 9 : ; < = > ?
At A B C D E F G H I J K L M N O P Q R S T U V W X Y Z <( // )> '> _
'! a b c d e f g h i j k l m n o p q r s t u v w x y z (! !! !) '? DT
PA HO BH NH IN NL SA ES HS HJ VS PD PU RI S2 S3
DC P1 P2 TS CC MW SG EG SS GC SC CI ST OC PM AC
NS IO D% G% IE DS II YI J% LJ NJ Ts KJ -- V% DZ
A= B= V= G= D= E= Z% Z= I= J= K= L= M= N= O= P=
R= S= T= U= F= H= C= C% S% Sc =" Y= %" JE JU JA
a= b= v= g= d= e= z% z= i= j= k= l= m= n= o= p=
r= s= t= u= f= h= c= c% s% sc =' y= %' je ju ja
N0 io d% g% ie ds ii yi j% lj nj ts kj SE v% dz

&charset JUS_I.B1.003-serb
&rem source: ECMA registry
&alias iso-ir-146
&g0esc x287b &g1esc x297b &g2esc x2a7b &g3esc x2b7b
&alias serbian
&code 0
NU SH SX EX ET EQ AK BL BS HT LF VT FF CR SO SI
DL D1 D2 D3 D4 NK SY EB CN EM SB EC FS GS RS US
SP ! " Nb DO % & ' ( ) * + , - . / 0 1 2 3 4 5 6 7 8 9 : ; < = > ?
Z% A= B= C= D= E= F= G= H= I= J% K= L= M= N= O=
P= LJ R= S= T= U= V= NJ DZ DS Z= S% D% Ts C% _
z% a= b= c= d= e= f= g= h= i= j% k= l= m= n= o=
p= lj r= s= t= u= v= nj dz ds z= s% d% ts c% DT

&charset JUS_I.B1.003-mac
&rem source: ECMA registry
&alias macedonian
&alias iso-ir-147
&g0esc x287d &g1esc x297d &g2esc x2a7d &g3esc x2b7d
&code 0
NU SH SX EX ET EQ AK BL BS HT LF VT FF CR SO SI
DL D1 D2 D3 D4 NK SY EB CN EM SB EC FS GS RS US
SP ! " Nb DO % & ' ( ) * + , - . / 0 1 2 3 4 5 6 7 8 9 : ; < = > ?
Z% A= B= C= D= E= F= G= H= I= J% K= L= M= N= O=
P= LJ R= S= T= U= V= NJ DZ DS Z= S% G% KJ C% _
z% a= b= c= d= e= f= g= h= i= j% k= l= m= n= o=
p= lj r= s= t= u= v= nj dz ds z= s% g% kj c% DT
```

```
&charset ISO_8859-9:1989
&rem source: ECMA registry
&alias iso-ir-148
&g1esc x2d4d &g2esc x2e4d &g3esc x2f4d
&alias ISO_8859-9
&alias ISO-8859-9
&alias latin5
&alias l5
&code 0
NU SH SX EX ET EQ AK BL BS HT LF VT FF CR SO SI
DL D1 D2 D3 D4 NK SY EB CN EM SB EC FS GS RS US
SP ! " Nb DO % & ' ( ) * + , - . / 0 1 2 3 4 5 6 7 8 9 : ; < = > ?
At A B C D E F G H I J K L M N O P Q R S T U V W X Y Z <( // )> '> _
'! a b c d e f g h i j k l m n o p q r s t u v w x y z (! !! !) '? DT
PA HO BH NH IN NL SA ES HS HJ VS PD PU RI S2 S3
DC P1 P2 TS CC MW SG EG SS GC SC CI ST OC PM AC
NS !I Ct Pd Cu Ye BB SE ': Co -a << NO -- Rg '-
DG +- 2S 3S '' My PI .M ', 1S -o >> 14 12 34 ?I
A! A' A> A? A: AA AE C, E! E' E> E: I! I' I> I:
G( N? O! O' O> O? O: *X O/ U! U' U> U: I. S, ss
a! a' a> a? a: aa ae c, e! e' e; e: e. i' i> i-
g( n? o! o' o> o? o: -: o/ u! u' u> u: i. s, y:

&charset KS_C_5601-1987
&rem source: ECMA registry
&alias iso-ir-149
&alias KS_C_5601-1989
&alias KSC_5601
&bits 16
&g0esc x2443 &g1esc x242943 &g2esc x242a43 &g3esc x242b43
&alias korean
&code2 1 1
SP ,_ .6 .M .. .3 ': +" -N -M PP // ?1 '6 '9 "6 "9 (' )' <1 >1 <+ >+
<' >' <" >" (" )" +- *X -: != =< >= 00
.: DG 1' 2' oC Ye AA Ct Pd Ml Fm
-V -T (A dP NB =3 HI SE :X *1 *2
0m 0M 0o Dw Db OS fS uT UT dT DT -> <-
-! -v <> =2 <* *> RT CG 0( :. In DI
&code2 2 1
=> == FA TE '' '? '< '( '" '0 '. ', '; !I ?I :R Io +Z *P Cu oF %0 Tl
PL Tr PR cS- cS cH cH- cC- cC 0. cD-
Rr 0L 0R .S RF RY RK RZ RH RX =T:) tel TEL
<H >H PI /- /= UD //> </// <!! !!>
Mb Md M8 M16 KSC (JU) N0 Co TM am pm Tel
&code2 3 1
! " Nb DO % & ' ( ) * + , - . / 0 1 2 3 4 5 6 7
8 9 : ; < = > ? At A B C D E F G H I J K L M N O
P Q R S T U V W X Y Z <( W= )> '> _ a b c d e f g
h i j k l m n o p q r s t u v w x y z (! !! !) '-
&codex k 4 4 1 94
&code2 5 1
1r 2r 3r 4r 5r 6r 7r 8r 9r ar br cr
```

```
&code2 5 16
1R 2R 3R 4R 5R 6R 7R 8R 9R aR bR cR
&code2 5 33
A* B* G* D* E* Z* Y* H* I* K* L* M* N* C* O*
P* R* S* T* U* F* X* Q* W*
&code2 5 65
a* b* g* d* e* z* y* h* i* k* l* m* n* c* o*
p* r* s* t* u* f* x* q* w*
&code2 6 1
hh vv dr dl ul ur vr dh vl uh vh
HH VV DR LD UL UR VR DH VL UH VH Vr
dH Vl uH vH vR Dh vL Uh Vh Dl dL Ul uL Ur uR Dr dR
Udr uDr UdR uDR Udl uDl UdL
uDL dLr dlR DLr DlR uLr ulR UlR vLr vlR Udh uDh
UdLr UdlR uDLr uDlR UdH uDH VLr VlR
&codex k 7 7 1 79
&code2 8 1
AE D- -a H/ ?? IJ ?? L. L/ O/ OE -o TH T/ NG
&codex k 8 8 17 44
&code2 8 45
a-o b-o c-o d-o e-o f-o g-o h-o i-o j-o k-o l-o m-o n-o o-o
p-o q-o r-o s-o t-o u-o v-o w-o x-o y-o z-o
1-o 2-o 3-o 4-o 5-o 6-o 7-o 8-o 9-o 10-o 11-o 12-o 13-o 14-o 15-o
12 13 23 14 34 18 38 58 78
&code2 9 1
ae d/ d- h/ i. ij kk l. l/ o/ oe ss th t/ ng 'n
&codex k 9 9 17 44
&code2 9 45
(a) (b) (c) (d) (e) (f) (g) (h) (i) (j) (k) (l) (m) (n) (o)
(p) (q) (r) (s) (t) (u) (v) (w) (x) (y) (z)
(1) (2) (3) (4) (5) (6) (7) (8) (9) (10) (11) (12) (13) (14) (15)
1S 2S 3S 4S nS 1s 2s 3s 4s
&code2 10 1
   A5 a5 I5 i5 U5 u5 E5 e5 O5 o5 ka ga ki gi ku
gu ke ge ko go sa za si zi su zu se ze so zo ta
da ti di tU tu du te de to do na ni nu ne no ha
ba pa hi bi pi hu bu pu he be pe ho bo po ma mi
mu me mo yA ya yU yu yO yo ra ri ru re ro wA wa
wi we wo n5
&code2 11 1
   a6 A6 i6 I6 u6 U6 e6 E6 o6 O6 Ka Ga Ki Gi Ku
Gu Ke Ge Ko Go Sa Za Si Zi Su Zu Se Ze So Zo Ta
Da Ti Di TU Tu Du Te De To Do Na Ni Nu Ne No Ha
Ba Pa Hi Bi Pi Hu Bu Pu He Be Pe Ho Bo Po Ma Mi
Mu Me Mo YA Ya YU Yu YO Yo Ra Ri Ru Re Ro WA Wa
Wi We Wo N6 Vi KA KE
&code2 12 1
A= B= V= G= D= E= IO Z% Z= I= J= K= L= M= N= O= P=
R= S= T= U= F= H= C= C% S% Sc =" Y= %" JE JU JA
&code2 12 49
a= b= v= g= d= e= io z% z= i= j= k= l= m= n= o= p=
r= s= t= u= f= h= c= c% s% sc =' y= %' je ju ja
&codex k 16 40 1 94
```

```
&codex k 42 93 1 94

&charset greek-ccitt
&rem source: ECMA registry
&alias iso-ir-150
&g0esc x282140 &g1esc x292140 &g2esc x2a2140 &g3esc x2b2140
&code 0
NU SH SX EX ET EQ AK BL BS HT LF VT FF CR SO SI
DL D1 D2 D3 D4 NK SY EB CN EM SB EC FS GS RS US
SP ! " Nb Cu % & ’ ( ) * + , - . / 0 1 2 3 4 5 6 7 8 9 : ; < = > ?
At A* B* G* D* E* Z* Y* H* I* K* L* M* N* C* O*
P* R* ?? S* T* U* F* X* Q* W* ?? <( // )> ’> _
?? a* b* g* d* e* z* y* h* i* k* l* m* n* c* o*
p* r* *s s* t* u* f* x* q* w* ?? (! !! !) ’- DT

&charset NC_NC00-10:81
&rem source: ECMA registry
&alias cuba
&alias iso-ir-151
&alias ISO646-CU
&g0esc x282141 &g1esc x292141 &g2esc x2a2141 &g3esc x2b2141
&code 0
NU SH SX EX ET EQ AK BL BS HT LF VT FF CR SO SI
DL D1 D2 D3 D4 NK SY EB CN EM SB EC FS GS RS US
SP ! " Nb Cu % & ’ ( ) * + , - . / 0 1 2 3 4 5 6 7 8 9 : ; < = > ?
At A B C D E F G H I J K L M N O P Q R S T U V W X Y Z !I N? )> ?I _
’! a b c d e f g h i j k l m n o p q r s t u v w x y z ’’ n? <( ’: DT

&charset ISO_6937-2-25
&rem source: ECMA registry
&alias iso-ir-152
&g1esc x2d4e &g2esc x2e4e &g3esc x2f4e
&code 0
NU SH SX EX ET EQ AK BL BS HT LF VT FF CR SO SI
DL D1 D2 D3 D4 NK SY EB CN EM SB EC FS GS RS US
SP ! " Nb Cu % & ’ ( ) * + , - . / 0 1 2 3 4 5 6 7 8 9 : ; < = > ?
At A B C D E F G H I J K L M N O P Q R S T U V W X Y Z <( // )> ’> _
’! a b c d e f g h i j k l m n o p q r s t u v w x y z (! !! !) ’? DT
PA HO BH NH IN NL SA ES HS HJ VS PD PU RI S2 S3
DC P1 P2 TS CC MW SG EG SS GC SC CI ST OC PM AC
NS ?? ?? ?? ?? ?? ?? ?? ?? ?? "6 ?? <- -! -> -v
?? ?? ?? ?? ?? ?? ?? ?? ?? ?? "9 ?? ?? ?? ?? ??
?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ??
?? ?? ?? ?? TM Md ?? ?? ?? ?? ?? ?? 18 38 58 78
Om ?? ?? ?? ?? ?? IJ L. ?? ?? OE ?? W> Y> Y: ’n
?? ?? ?? ?? ?? ?? ij l. ?? ?? oe ?? w> y> ?? ??

&charset GOST_19768-74
&rem source: ECMA registry
&alias ST_SEV_358-88
&alias iso-ir-153
&g1esc x2d4f &g2esc x2e4f &g3esc x2f4f
&code 0
```

```
  NU SH SX EX ET EQ AK BL BS HT LF VT FF CR SO SI
  DL D1 D2 D3 D4 NK SY EB CN EM SB EC FS GS RS US
  SP ! " Nb DO % & ' ( ) * + , - . / 0 1 2 3 4 5 6 7 8 9 : ; < = > ?
  At A B C D E F G H I J K L M N O P Q R S T U V W X Y Z <( // )> '> _
  '! a b c d e f g h i j k l m n o p q r s t u v w x y z (! !! !) '? DT
  PA HO BH NH IN NL SA ES HS HJ VS PD PU RI S2 S3
  DC P1 P2 TS CC MW SG EG SS GC SC CI ST OC PM AC
  NS IO ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? -- ?? ??
  A= B= V= G= D= E= Z% Z= I= J= K= L= M= N= O= P=
  R= S= T= U= F= H= C= C% S% Sc =" Y= %" JE JU JA
  a= b= v= g= d= e= z% z= i= j= k= l= m= n= o= p=
  r= s= t= u= f= h= c= c% s% sc =' y= %' je ju ja
  ?? io ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ??

  &charset ISO_8859-supp
  &rem source: ECMA registry
  &alias iso-ir-154
  &alias latin1-2-5
  &g1esc x2d50 &g2esc x2e50 &g3esc x2f50
  &code 0
  NU SH SX EX ET EQ AK BL BS HT LF VT FF CR SO SI
  DL D1 D2 D3 D4 NK SY EB CN EM SB EC FS GS RS US
  SP ! " Nb DO % & ' ( ) * + , - . / 0 1 2 3 4 5 6 7 8 9 : ; < = > ?
  At A B C D E F G H I J K L M N O P Q R S T U V W X Y Z <( // )> '> _
  '! a b c d e f g h i j k l m n o p q r s t u v w x y z (! !! !) '? DT
  PA HO BH NH IN NL SA ES HS HJ VS PD PU RI S2 S3
  DC P1 P2 TS CC MW SG EG SS GC SC CI ST OC PM AC
  ?? ?? A- C> C. ?? E. E- G> '6 "6 TM <- -! -> -v
  ?? ?? a- c> c. d- e. e- g> '9 "9 Md 18 38 58 78
  ?? G( G. G, H> H/ I? I. I- I; IJ J> K, L, L. N,
  -M NG O- OE R, S> T/ TH U? U( U- U; W> Y' Y> Y:
  Om g( g. g, h> h/ i? i. i- i; ij j> k, l, l. n,
  kk ng o- oe r, s> t/ th u? u( u- u; w> y' y> 'n

  &charset ISO_10367-box
  &rem source: ECMA registry
  &alias iso-ir-155
  &g1esc x2d51 &g2esc x2e51 &g3esc x2f51
  &code 0
  NU SH SX EX ET EQ AK BL BS HT LF VT FF CR SO SI
  DL D1 D2 D3 D4 NK SY EB CN EM SB EC FS GS RS US
  SP ! " Nb DO % & ' ( ) * + , - . / 0 1 2 3 4 5 6 7 8 9 : ; < = > ?
  At A B C D E F G H I J K L M N O P Q R S T U V W X Y Z <( // )> '> _
  '! a b c d e f g h i j k l m n o p q r s t u v w x y z (! !! !) '? DT
  PA HO BH NH IN NL SA ES HS HJ VS PD PU RI S2 S3
  DC P1 P2 TS CC MW SG EG SS GC SC CI ST OC PM AC
  ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ??
  ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ??
  VV HH DR LD UR UL VR VL DH UH VH UB LB FB sB ??
  vv hh dr dl ur ul vr vl dh uh vh .S :S ?S ?? ??
  ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ??
  ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ??
```

```
&charset latin6
&rem source: ECMA registry
&alias iso-ir-157
&alias l6
&code 0
NU SH SX EX ET EQ AK BL BS HT LF VT FF CR SO SI
DL D1 D2 D3 D4 NK SY EB CN EM SB EC FS GS RS US
SP ! " Nb DO % & ’ ( ) * + , - . / 0 1 2 3 4 5 6 7 8 9 : ; < = > ?
At A B C D E F G H I J K L M N O P Q R S T U V W X Y Z <( // )> ’> _
’! a b c d e f g h i j k l m n o p q r s t u v w x y z (! !! !) ’? DT
PA HO BH NH IN NL SA ES HS HJ VS PD PU RI S2 S3
DC P1 P2 TS CC MW SG EG SS GC SC CI ST OC PM AC
NS A; E- G, I- I? K, L, N’ R, S< T/ Z< -- kk NG
d/ a; e- g, i- i? k, l, n’ r, s< t/ z< SE ss ng
A- A’ A> A? A: AA AE I; C< E’ E; E: E. I’ I> I:
D/ N, O- O’ O> O? O: U? O/ U; U’ U> U: Y’ TH U-
a- a’ a> a? a: aa ae i; c< e’ e; e: e. i’ i> i:
d- n, o- o’ o> o? o: u? o/ u; u’ u> u: y’ th u-

&charset latin-lap
&rem source: ECMA registry
&alias lap
&alias iso-ir-158
&code 0
NU SH SX EX ET EQ AK BL BS HT LF VT FF CR SO SI
DL D1 D2 D3 D4 NK SY EB CN EM SB EC FS GS RS US
SP ! " Nb DO % & ’ ( ) * + , - . / 0 1 2 3 4 5 6 7 8 9 : ; < = > ?
At A B C D E F G H I J K L M N O P Q R S T U V W X Y Z <( // )> ’> _
’! a b c d e f g h i j k l m n o p q r s t u v w x y z (! !! !) ’? DT
PA HO BH NH IN NL SA ES HS HJ VS PD PU RI S2 S3
DC P1 P2 TS CC MW SG EG SS GC SC CI ST OC PM AC
’’ ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ??
;S ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ??
A( A> A! A- A1 A7 A3 E( E! E- G/ G< K< O( O! O;
O1 U- ED EZ ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ??
a( a> a! a- a1 a7 a3 e( e! e- g/ g< k< o( o! o;
o1 u- ed ez ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ??

&charset JIS_X0212-1990
&rem source: ECMA registry
&alias x0212
&alias iso-ir-159
&bits 16
&g0esc x2444 &g1esc x242944 &g2esc x242a44 &g3esc x242b44
&code2 2 15
’( ’< ’, ’. ’" ’- ’; ’0 ’?
’’ ’%
&code2 2 34
!I BB ?I TM Cu N0
&code2 2 75
-o -a Co Rg
&code2 6 65
A% E% Y% I% J* ?? O% ?? U% V* ?? W%
```

```
  &code2 6 81
  a% e% y% i% j* i3 o% *s u% v* u3 w%
  &code2 7 34
  D% G% IE DS II YI J% LJ NJ Ts KJ V% DZ
  &code2 7 82
  d% g% ie ds ii yi j% lj nj ts kj v% dz
  &code2 9 1
  AE D/ ?? H/ ?? IJ ?? L/ L. ?? NG O/ OE ?? T/ TH
  &code2 9 33
  ae d/ d- h/ i. ij kk l/ l. ’n ng o/ oe ss t/ th
  &code2 10 1
  A’ A! A: A> A( A< A; AA A? C’ C> C< C, C. D< E’ E! E: E> E( E. E-
  E; ?? G> G( G, G. H> I’ I! I: I> I< I. I- I; I? J> K, L’ L, N’ N< N,
  N? O’ O! O: O> O< O" O- O? R’ R< R, S’ S> S< S, T< T, U’ U! U: U( U<
  U" U- U; U0 U:’ U:! U:< U:- W. Y’ Y: Y> Z’ Z< Z.
  &code2 11 1
  a’ a! a: a> a( a< a; aa a? c’ c> c< c, c. d< e’ e! e: e> e( e. e-
  e; g’ g> g( ?? g. h> i’ i! i: i> i< ?? i- i; i? j> k, l’ l, n’ n< n,
  n? o’ o! o: o> o< o" o- o? r’ r< r, s’ s> s< s, t< t, u’ u! u: u( u<
  u" u- u; u0 u:’ u:! u:< u:- w. y’ y: y> z’ z< z.
  &codex J 16 76 1 94
  &codex J 77 77 1 67

  &charset DS_2089
  &rem source: Danish Standard, DS 2089, February 1974
  &alias DS2089
  &alias ISO646-DK
  &alias dk
  &code 0
  NU SH SX EX ET EQ AK BL BS HT LF VT FF CR SO SI
  DL D1 D2 D3 D4 NK SY EB CN EM SB EC FS GS RS US
  SP ! " Nb DO % & ’ ( ) * + , - . / 0 1 2 3 4 5 6 7 8 9 : ; < = > ?
  At A B C D E F G H I J K L M N O P Q R S T U V W X Y Z AE O/ AA ’> _
  ’! a b c d e f g h i j k l m n o p q r s t u v w x y z ae o/ aa ’? DT

  &charset us-dk
  &rem for compatibility with ASCII
  &code 0
  NU SH SX EX ET EQ AK BL BS HT LF VT FF CR SO SI
  DL D1 D2 D3 D4 NK SY EB CN EM SB EC FS GS RS US
  SP ! " Nb DO % & ’ ( ) * + , - . / 0 1 2 3 4 5 6 7 8 9 : ; < = > ?
  At A B C D E F G H I J K L M N O P Q R S T U V W X Y Z <( // )> ’> _
  ’! a b c d e f g h i j k l m n o p q r s t u v w x y z (! !! !) ’? DT
  &duplicate 91 AE
  &duplicate 92 O/
  &duplicate 93 AA
  &duplicate 123 ae
  &duplicate 124 o/
  &duplicate 125 aa
  &duplicate 91 A:
  &duplicate 92 O:
  &duplicate 123 a:
  &duplicate 124 o:
```

```
&charset dk-us
&code 0
NU SH SX EX ET EQ AK BL BS HT LF VT FF CR SO SI
DL D1 D2 D3 D4 NK SY EB CN EM SB EC FS GS RS US
SP ! " Nb DO % & ' ( ) * + , - . / 0 1 2 3 4 5 6 7 8 9 : ; < = > ?
At A B C D E F G H I J K L M N O P Q R S T U V W X Y Z AE O/ AA '> _
'! a b c d e f g h i j k l m n o p q r s t u v w x y z ae o/ aa '? DT
&duplicate 91 <(
&duplicate 92 //
&duplicate 93 )>
&duplicate 123 (!
&duplicate 124 !!
&duplicate 125 !)
&duplicate 91 A:
&duplicate 92 O:
&duplicate 123 a:
&duplicate 124 o:

&charset JIS_X0201
&alias X0201
&code 0
NU SH SX EX ET EQ AK BL BS HT LF VT FF CR SO SI
DL D1 D2 D3 D4 NK SY EB CN EM SB EC FS GS RS US
SP ! " Nb DO % & ' ( ) * + , - . / 0 1 2 3 4 5 6 7 8 9 : ; < = > ?
At A B C D E F G H I J K L M N O P Q R S T U V W X Y Z <( Ye )> '> _
'! a b c d e f g h i j k l m n o p q r s t u v w x y z (! !! !) '- DT
PA HO BH NH IN NL SA ES HS HJ VS PD PU RI S2 S3
DC P1 P2 TS CC MW SG EG SS GC SC CI ST OC PM AC
NS ._ <' >' ,_ .6 Wo a6 i6 u6 e6 o6 YA YU YO TU
-6 A6 I6 U6 E6 O6 Ka Ki Ku Ke Ko Sa Si Su Se So
Ta Ti Tu Te To Na Ni Nu Ne No Ha Hi Hu He Ho Ma
Mi Mu Me Mo Ya Yu Yo Ra Ri Ru Re Ro Wa N6 "5 05
?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ??
?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ??

&charset KSC5636
&alias ISO646-KR
&code 0
NU SH SX EX ET EQ AK BL BS HT LF VT FF CR SO SI
DL D1 D2 D3 D4 NK SY EB CN EM SB EC FS GS RS US
SP ! " Nb DO % & ' ( ) * + , - . / 0 1 2 3 4 5 6 7 8 9 : ; < = > ?
At A B C D E F G H I J K L M N O P Q R S T U V W X Y Z <( W= )> '> _
'! a b c d e f g h i j k l m n o p q r s t u v w x y z (! !! !) '? DT

&charset DEC-MCS
&rem VAX/VMS User's Manual, Order Number: AI-Y517A-TE, April 1986.
&alias dec
&code 0
NU SH SX EX ET EQ AK BL BS HT LF VT FF CR SO SI
DL D1 D2 D3 D4 NK SY EB CN EM SB EC FS GS RS US
SP ! " Nb DO % & ' ( ) * + , - . / 0 1 2 3 4 5 6 7 8 9 : ; < = > ?
At A B C D E F G H I J K L M N O P Q R S T U V W X Y Z <( // )> '> _
```

```
’! a b c d e f g h i j k l m n o p q r s t u v w x y z (! !! !) ’? DT
PA HO BH NH IN NL SA ES HS HJ VS PD PU RI S2 S3
DC P1 P2 TS CC MW SG EG SS GC SC CI ST OC PM AC
?? !I Ct Pd ?? Ye ?? SE Cu Co -a << ?? ?? ?? ??
DG +- 2S 3S ?? My PI .M ?? 1S -o >> 14 12 ?? ?I
A! A’ A> A? A: AA AE C, E! E’ E> E: I! I’ I> I:
?? N? O! O’ O> O? O: OE O/ U! U’ U> U: Y: ?? ss
a! a’ a> a? a: aa ae c, e! e’ e> e: i! i’ i> i:
?? n? o! o’ o> o? o: oe o/ u! u’ u> u: y: ?? ??

&charset hp-roman8
&rem source: LaserJet IIP Printer User’s Manual,
&rem HP part no 33471-90901, Hewlet-Packard, June 1989.
&alias roman8
&alias r8
&code 0
NU SH SX EX ET EQ AK BL BS HT LF VT FF CR SO SI
DL D1 D2 D3 D4 NK SY EB CN EM SB EC FS GS RS US
SP ! " Nb DO % & ’ ( ) * + , - . / 0 1 2 3 4 5 6 7 8 9 : ; < = > ?
At A B C D E F G H I J K L M N O P Q R S T U V W X Y Z <( // )> ’> _
’! a b c d e f g h i j k l m n o p q r s t u v w x y z (! !! !) ’? DT
PA HO BH NH IN NL SA ES HS HJ VS PD PU RI S2 S3
DC P1 P2 TS CC MW SG EG SS GC SC CI ST OC PM AC
NS A! A> E! E> E: I> I: ’’ 1" AN ’: ?1 U! U> Li
’- Y’ y’ DG C, c, N? n? !I ?I Cu Pd Ye SE Fl Ct
a> e> o> u> a’ e’ o’ u’ a! e! o! u! a: e: o: u:
AA i> O/ AE aa i’ o/ ae A: i! O: U: E’ i: ss O>
A’ A? a? D- d- I’ I! O’ O! O? o? S< s< U’ Y: y:
TH th .M My PI 34 -M 14 12 -a -o << fS >> +- ??

&charset macintosh
&rem source: The Unicode Standard ver1.0, ISBN 0-201-56788-1, Oct 1991
&alias mac
&code 0
NU SH SX EX ET EQ AK BL BS HT LF VT FF CR SO SI
DL D1 D2 D3 D4 NK SY EB CN EM SB EC FS GS RS US
SP ! " Nb DO % & ’ ( ) * + , - . / 0 1 2 3 4 5 6 7 8 9 : ; < = > ?
At A B C D E F G H I J K L M N O P Q R S T U V W X Y Z <( // )> ’> _
’! a b c d e f g h i j k l m n o p q r s t u v w x y z (! !! !) ’? DT
A: AA C, E’ N? O: U: a’ a! a> a: a? aa c, e’ e!
e> e: i’ i! i> i: n? o’ o! o> o: o? u’ u! u> u:
/- DG Ct Pd SE Sb PI ss Rg Co TM ’’ ’: != AE O/
00 +- =< >= Ye My dP +Z *P p* In -a -o W* ae o/
?I !I NO RT Fl ?2 D* << >> .3 NS A! A? O? OE oe
-M -N "6 "9 ’6 ’9 -: Db y: Y: /f Cu <1 >1 fi fl
/= .M .9 :9 %0 A> E> A’ E: E! I’ I> I: I! O’ O>
?? O! U’ U> U! i. ?? ?? ’- ’( ’. ’0 ’, ’" ’; ’<

&charset IBM037
&rem source: IBM NLS RM Vol2 SE09-8002-01, March 1990
&alias cp037
&alias ebcdic-cp-us
&alias ebcdic-cp-ca
```

```
  &alias ebcdic-cp-wt
  &alias ebcdic-cp-nl
  &code 0
  NU SH SX EX ET EQ AK BL BS HT LF VT FF CR SO SI
  DL D1 D2 D3 D4 NK SY EB CN EM SB EC FS GS RS US
  ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ??
  ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ??
  SP NS a> a: a! a' a? aa c, n? Ct .  <  (  +  !!
  &  e' e> e: e! i' i> i: i! ss !  DO *  )  ;  NO
  -  /  A> A: A! A' A? AA C, N? BB ,  %  _  >  ?
  o/ E' E> E: E! I' I> I: I! '! :  Nb At '  =  "
  O/ a  b  c  d  e  f  g  h  i  << >> d- y' th +-
  DG j  k  l  m  n  o  p  q  r  -a -o ae ', AE Cu
  My '? s  t  u  v  w  x  y  z  !I ?I D- Y' TH Rg
  '> Pd Ye .M Co SE PI 14 12 34 <( )> '- ': '' *X
  (! A  B  C  D  E  F  G  H  I  -- o> o: o! o' o?
  !) J  K  L  M  N  O  P  Q  R  1S u> u: u! u' y:
  // -: S  T  U  V  W  X  Y  Z  2S O> O: O! O' O?
  0  1  2  3  4  5  6  7  8  9  3S U> U: U! U' DT

  &charset IBM038
  &rem source: IBM 3174 Character Set Ref, GA27-3831-02, March 1990
  &alias EBCDIC-INT
  &alias cp038
  &code 0
  NU SH SX EX ET EQ AK BL BS HT LF VT FF CR SO SI
  DL D1 D2 D3 D4 NK SY EB CN EM SB EC FS GS RS US
  ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ??
  ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ??
  SP ?? ?? ?? ?? ?? ?? ?? ?? ?? <( .  <  (  +  !
  &  ?? ?? ?? ?? ?? ?? ?? ?? ?? )> DO *  )  ;  '>
  -  /  ?? ?? ?? ?? ?? ?? ?? ?? BB ,  %  _  >  ?
  ?? ?? ?? ?? ?? ?? ?? ?? ?? '! :  Nb At '  =  "
  ?? a  b  c  d  e  f  g  h  i  ?? ?? ?? ?? ?? ??
  ?? j  k  l  m  n  o  p  q  r  ?? ?? ?? ?? ?? ??
  ?? '? s  t  u  v  w  x  y  z  ?? ?? ?? ?? ?? ??
  ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ??
  (! A  B  C  D  E  F  G  H  I  ?? ?? ?? ?? ?? ??
  !) J  K  L  M  N  O  P  Q  R  ?? ?? ?? ?? ?? ??
  // ?? S  T  U  V  W  X  Y  Z  ?? ?? ?? ?? ?? ??
  0  1  2  3  4  5  6  7  8  9  ?? ?? ?? ?? ?? DT

  &charset IBM273
  &rem source: IBM NLS RM Vol2 SE09-8002-01, March 1990
  &alias CP273
  &code 0
  NU SH SX EX ET EQ AK BL BS HT LF VT FF CR SO SI
  DL D1 D2 D3 D4 NK SY EB CN EM SB EC FS GS RS US
  ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ??
  ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ??
  SP NS a> (! a! a' a? aa c, n? A: .  <  (  +  !
  &  e' e> e: e! i' i> i: i! '? U: DO *  )  ;  '>
  -  /  A> <( A! A' A? AA C, N? o: ,  %  _  >  ?
```

```
  o/ E' E> E: E! I' I> I: I! '! :  Nb SE '  =  "
  O/ a  b  c  d  e  f  g  h  i  << >> d- y' th +-
  DG j  k  l  m  n  o  p  q  r  -a -o ae ', AE Cu
  My ss s  t  u  v  w  x  y  z  !I ?I D- Y' TH Rg
  Ct Pd Ye .M Co At PI 14 12 34 NO !! '- ': '' *X
  a: A  B  C  D  E  F  G  H  I  -- o> BB o! o' o?
  u: J  K  L  M  N  O  P  Q  R  1S u> !) u! u' y:
  O: -: S  T  U  V  W  X  Y  Z  2S O> // O! O' O?
  0  1  2  3  4  5  6  7  8  9  3S U> )> U! U' DT

  &charset IBM274
  &rem source: IBM 3174 Character Set Ref, GA27-3831-02, March 1990
  &alias EBCDIC-BE
  &alias CP274
  &code 0
  NU SH SX EX ET EQ AK BL BS HT LF VT FF CR SO SI
  DL D1 D2 D3 D4 NK SY EB CN EM SB EC FS GS RS US
  ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ??
  ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ??
  SP ?? ?? ?? ?? ?? ?? ?? ?? ?? <( .  <  (  +  !
  &  ?? ?? ?? ?? ?? ?? ?? ?? ?? )> DO *  )  ;  '>
  -  /  ?? ?? ?? ?? ?? ?? ?? ?? u! ,  %  _  >  ?
  ?? ?? ?? ?? ?? ?? ?? ?? ?? '! :  Nb a! '  =  "
  ?? a  b  c  d  e  f  g  h  i  ?? ?? ?? ?? ?? ??
  ?? j  k  l  m  n  o  p  q  r  ?? ?? ?? ?? ?? ??
  ?? ': s  t  u  v  w  x  y  z  ?? ?? ?? ?? ?? ??
  ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ??
  e' A  B  C  D  E  F  G  H  I  ?? ?? ?? ?? ?? ??
  e! J  K  L  M  N  O  P  Q  R  ?? ?? ?? ?? ?? ??
  c, ?? S  T  U  V  W  X  Y  Z  ?? ?? ?? ?? ?? ??
  0  1  2  3  4  5  6  7  8  9  ?? ?? ?? ?? ?? DT

  &charset IBM275
  &rem source: IBM NLS RM Vol2 SE09-8002-01, March 1990
  &alias EBCDIC-BR
  &alias cp275
  &code 0
  NU SH SX EX ET EQ AK BL BS HT LF VT FF CR SO SI
  DL D1 D2 D3 D4 NK SY EB CN EM SB EC FS GS RS US
  ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ??
  ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ??
  SP ?? ?? ?? ?? ?? ?? ?? ?? ?? E' .  <  (  +  !
  &  ?? ?? ?? ?? ?? ?? ?? ?? ?? DO C, *  )  ;  '>
  -  /  ?? ?? ?? ?? ?? ?? ?? ?? c, ,  %  _  >  ?
  ?? ?? ?? ?? ?? ?? ?? ?? ?? a? :  O? A? '  =  "
  ?? a  b  c  d  e  f  g  h  i  ?? ?? ?? ?? ?? ??
  ?? j  k  l  m  n  o  p  q  r  ?? ?? ?? ?? ?? ??
  ?? '? s  t  u  v  w  x  y  z  ?? ?? ?? ?? ?? ??
  ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ??
  o? A  B  C  D  E  F  G  H  I  ?? ?? ?? ?? ?? ??
  e' J  K  L  M  N  O  P  Q  R  ?? ?? ?? ?? ?? ??
  // ?? S  T  U  V  W  X  Y  Z  ?? ?? ?? ?? ?? ??
  0  1  2  3  4  5  6  7  8  9  ?? ?? ?? ?? ?? DT
```

```
&charset IBM277
&rem source: IBM NLS RM Vol2 SE09-8002-01, March 1990
&alias EBCDIC-CP-DK
&alias EBCDIC-CP-NO
&code 0
NU SH SX EX ET EQ AK BL BS HT LF VT FF CR SO SI
DL D1 D2 D3 D4 NK SY EB CN EM SB EC FS GS RS US
?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ??
?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ??
SP NS a> a: a! a' a? !) c, n? Nb .  <  (  +  !
&  e' e> e: e! i' i> i: i! ss Cu AA *  )  ;  '>
-  /  A> A: A! A' A? DO C, N? o/ ,  %  _  >  ?
BB E' E> E: E! I' I> I: I! '! :  AE O/ '  =  "
At a  b  c  d  e  f  g  h  i  << >> d- y' th +-
DG j  k  l  m  n  o  p  q  r  -a -o (! ', <( )>
My u: s  t  u  v  w  x  y  z  !I ?I D- Y' TH Rg
Ct Pd Ye .M Co SE PI 14 12 34 NO !! '- ': '' *X
ae A  B  C  D  E  F  G  H  I  -- o> o: o! o' o?
aa J  K  L  M  N  O  P  Q  R  1S u> '? u! u' y:
// -: S  T  U  V  W  X  Y  Z  2S O> O: O! O' O?
0  1  2  3  4  5  6  7  8  9  3S U> U: U! U' DT

&charset IBM278
&rem source: IBM NLS RM Vol2 SE09-8002-01, March 1990
&alias CP278
&alias ebcdic-cp-fi
&alias ebcdic-cp-se
&code 0
NU SH SX EX ET EQ AK BL BS HT LF VT FF CR SO SI
DL D1 D2 D3 D4 NK SY EB CN EM SB EC FS GS RS US
?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ??
?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ??
SP NS a> (! a! a' a? !) c, n? SE .  <  (  +  !
&  '! e> e: e! i' i> i: i! ss Cu AA *  )  ;  '>
-  /  A> Nb A! A' A? DO C, N? o: ,  %  _  >  ?
o/ E' E> E: E! I' I> I: I! e' :  A: O: '  =  "
O/ a  b  c  d  e  f  g  h  i  << >> d- y' th +-
DG j  k  l  m  n  o  p  q  r  -a -o ae ', AE )>
My u: s  t  u  v  w  x  y  z  !I ?I D- Y' TH Rg
Ct Pd Ye .M Co <( PI 14 12 34 NO !! '- ': '' *X
a: A  B  C  D  E  F  G  H  I  -- o> BB o! o' o?
aa J  K  L  M  N  O  P  Q  R  1S u> '? u! u' y:
// -: S  T  U  V  W  X  Y  Z  2S O> At O! O' O?
0  1  2  3  4  5  6  7  8  9  3S U> U: U! U' DT

&charset IBM280
&rem source: IBM NLS RM Vol2 SE09-8002-01, March 1990
&alias CP280
&alias ebcdic-cp-it
&code 0
NU SH SX EX ET EQ AK BL BS HT LF VT FF CR SO SI
DL D1 D2 D3 D4 NK SY EB CN EM SB EC FS GS RS US
```

```
  ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ??
  ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ??
  SP NS a> a: (! a' a? aa // n? DG .  <  (  +  !
  &  )> e> e: !) i' i> i: '? ss e' DO *  )  ;  '>
  -  /  A> A: A! A' A? AA C, N? o! ,  %  _  >  ?
  o/ E' E> E: E! I' I> I: I! u! :  Pd SE '  =  "
  O/ a  b  c  d  e  f  g  h  i  << >> d- y' th +-
  <( j  k  l  m  n  o  p  q  r  -a -o ae ', AE Cu
  My i! s  t  u  v  w  x  y  z  !I ?I D- Y' TH Rg
  Ct Nb Ye .M Co At PI 14 12 34 NO !! '- ': '' *X
  a! A  B  C  D  E  F  G  H  I  -- o> o: BB o' o?
  e! J  K  L  M  N  O  P  Q  R  1S u> u: '! u' y:
  c, -: S  T  U  V  W  X  Y  Z  2S O> O: O! O' O?
  0  1  2  3  4  5  6  7  8  9  3S U> U: U! U' DT

  &charset IBM281
  &rem source: IBM 3174 Character Set Ref, GA27-3831-02, March 1990
  &alias EBCDIC-JP-E
  &alias cp281
  &code 0
  NU SH SX EX ET EQ AK BL BS HT LF VT FF CR SO SI
  DL D1 D2 D3 D4 NK SY EB CN EM SB EC FS GS RS US
  ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ??
  ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ??
  SP ?? ?? ?? ?? ?? ?? ?? ?? ?? Pd .  <  (  +  !!
  &  ?? ?? ?? ?? ?? ?? ?? ?? ?? !  Ye *  )  ;  NO
  -  /  ?? ?? ?? ?? ?? ?? ?? ?? BB ,  %  _  >  ?
  ?? ?? ?? ?? ?? ?? ?? ?? ?? '! :  Nb At '  =  "
  ?? a  b  c  d  e  f  g  h  i  ?? ?? ?? ?? ?? ??
  ?? j  k  l  m  n  o  p  q  r  ?? ?? ?? ?? ?? ??
  ?? '- s  t  u  v  w  x  y  z  ?? ?? ?? ?? ?? ??
  ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ??
  (! A  B  C  D  E  F  G  H  I  ?? ?? ?? ?? ?? ??
  !) J  K  L  M  N  O  P  Q  R  ?? ?? ?? ?? ?? ??
  DO ?? S  T  U  V  W  X  Y  Z  ?? ?? ?? ?? ?? ??
  0  1  2  3  4  5  6  7  8  9  ?? ?? ?? ?? ?? DT

  &charset IBM284
  &rem source: IBM NLS RM Vol2 SE09-8002-01, March 1990
  &alias CP284
  &alias ebcdic-cp-es
  &code 0
  NU SH SX EX ET EQ AK BL BS HT LF VT FF CR SO SI
  DL D1 D2 D3 D4 NK SY EB CN EM SB EC FS GS RS US
  ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ??
  ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ??
  SP NS a> a: a! a' a? aa c, BB <( .  <  (  +  !!
  &  e' e> e: e! i' i> i: i! ss )> DO *  )  ;  NO
  -  /  A> A: A! A' A? AA C, Nb n? ,  %  _  >  ?
  o/ E' E> E: E! I' I> I: I! '! :  N? At '  =  "
  O/ a  b  c  d  e  f  g  h  i  << >> d- y' th +-
  DG j  k  l  m  n  o  p  q  r  -a -o ae ', AE Cu
  My ': s  t  u  v  w  x  y  z  !I ?I D- Y' TH Rg
```

```
  Ct Pd Ye .M Co SE PI 14 12 34 '> !  '- '? '' *X
  (! A  B  C  D  E  F  G  H  I  -- o> o: o! o' o?
  !) J  K  L  M  N  O  P  Q  R  1S u> u: u! u' y:
  // -: S  T  U  V  W  X  Y  Z  2S O> O: O! O' O?
  0  1  2  3  4  5  6  7  8  9  3S U> U: U! U' DT

  &charset IBM285
  &rem source: IBM NLS RM Vol2 SE09-8002-01, March 1990
  &alias CP285
  &alias ebcdic-cp-gb
  &code 0
  NU SH SX EX ET EQ AK BL BS HT LF VT FF CR SO SI
  DL D1 D2 D3 D4 NK SY EB CN EM SB EC FS GS RS US
  ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ??
  ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ??
  SP NS a> a: a! a' a? aa c, n? DO .  <  (  +  !!
  &  e' e> e: e! i' i> i: i! ss !  Pd *  )  ;  NO
  -  /  A> A: A! A' A? AA C, N? BB ,  %  _  >  ?
  o/ E' E> E: E! I' I> I: I! '! :  Nb At '  =  "
  O/ a  b  c  d  e  f  g  h  i  << >> d- y' th +-
  DG j  k  l  m  n  o  p  q  r  -a -o ae ', AE Cu
  My '? s  t  u  v  w  x  y  z  !I ?I D- Y' TH Rg
  Ct <( Ye .M Co SE PI 14 12 34 '> )> '- ': '' *X
  (! A  B  C  D  E  F  G  H  I  -- o> o: o! o' o?
  !) J  K  L  M  N  O  P  Q  R  1S u> u: u! u' y:
  // -: S  T  U  V  W  X  Y  Z  2S O> O: O! O' O?
  0  1  2  3  4  5  6  7  8  9  3S U> U: U! U' DT

  &charset IBM290
  &rem source: IBM 3174 Character Set Ref, GA27-3831-02, March 1990
  &alias cp290
  &alias EBCDIC-JP-kana
  &code 0
  NU SH SX EX ET EQ AK BL BS HT LF VT FF CR SO SI
  DL D1 D2 D3 D4 NK SY EB CN EM SB EC FS GS RS US
  ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ??
  ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ??
  SP ._ <' >' ,_ .6 Wo a6 i6 u6 Pd .  <  (  +  !!
  &  e6 o6 YA YU YO TU ?? -6 ?? !  Ye *  )  ;  NO
  -  /  ?? ?? ?? ?? ?? ?? ?? ?? BB ,  %  _  >  ?
  ?? ?? ?? ?? ?? ?? ?? ?? ?? '! :  Nb At '  =  "
  ?? A6 I6 U6 E6 O6 Ka Ki Ku Ke Ko ?? Sa Si Su Se
  So Ta Ti Tu Te To Na Ni Nu Ne No ?? ?? Ha Hi Hu
  ?? '- He Ho Ma Mi Mu Me Mo Ya Yu ?? Yo Ra Ri Ru
  ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? Re Ro Wa N6 "5 05
  ?? A  B  C  D  E  F  G  H  I  ?? ?? ?? ?? ?? ??
  ?? J  K  L  M  N  O  P  Q  R  ?? ?? ?? ?? ?? ??
  DO ?? S  T  U  V  W  X  Y  Z  ?? ?? ?? ?? ?? ??
  0  1  2  3  4  5  6  7  8  9  ?? ?? ?? ?? ?? DT

  &charset IBM297
  &rem source: IBM NLS RM Vol2 SE09-8002-01, March 1990
  &alias cp297
```

```
  &alias ebcdic-cp-fr
  &code 0
  NU SH SX EX ET EQ AK BL BS HT LF VT FF CR SO SI
  DL D1 D2 D3 D4 NK SY EB CN EM SB EC FS GS RS US
  ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ??
  ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ??
  SP NS a> a: At a' a? aa // n? DG .  <  (  +  !
  &  (! e> e: !) i' i> i: i! ss SE DO *  )  ;  '>
  -  /  A> A: A! A' A? AA C, N? u! ,  %  _  >  ?
  o/ E' E> E: E! I' I> I: I! My :  Pd a! '  =  "
  O/ a  b  c  d  e  f  g  h  i  << >> d- y' th +-
  <( j  k  l  m  n  o  p  q  r  -a -o ae ', AE Cu
  '! ': s  t  u  v  w  x  y  z  !I ?I D- Y' TH Rg
  Ct Nb Ye .M Co )> PI 14 12 34 NO !! '- '? '' *X
  e' A  B  C  D  E  F  G  H  I  -- o> o: o! o' o?
  e! J  K  L  M  N  O  P  Q  R  1S u> u: BB u' y:
  c, -: S  T  U  V  W  X  Y  Z  2S O> O: O! O' O?
  0  1  2  3  4  5  6  7  8  9  3S U> U: U! U' DT

  &charset IBM420
  &rem source: IBM NLS RM Vol2 SE09-8002-01, March 1990
  &rem IBM NLS RM p 11-11
  &alias cp420
  &alias ebcdic-cp-ar1
  &code 0
  NU SH SX EX ET EQ AK BL BS HT LF VT FF CR SO SI
  DL D1 D2 D3 D4 NK SY EB CN EM SB EC FS GS RS US
  ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ??
  ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ??
  SP  NS  3+  3+; ++  ??  H'  aM  aM. aH  Ct  .   <   (   +   !!
  &   aH. wH  ??  ??  yH  a+  a+. b+  b+, !   DO  *   )   ;   NO
  -   /   tm  t+  t+, tk  tk, g+  g+, hk  BB  ,   %   _   >   ?
  hk, x+  x+, d+  dk  r+  z+  s+  s+, ,+  :   Nb  At  '   =   "
  sn  a   b   c   d   e   f   g   h   i   sn, c+  c+, dd  dd, tj
  zH  j   k   l   m   n   o   p   q   r   e+  e+. e+, e+; i+  i+.
  i+, -:  s   t   u   v   w   x   y   z   i+; f+  f+, q+  q+, k+
  k+, l+  lM- lM. lH- lH. ??  ??  la- la. l+, m+  m+, n+  n+, h+
  ;+  A   B   C   D   E   F   G   H   I   --  h+, ??  h+; ??  w+
  ?+  J   K   L   M   N   O   P   Q   R   j+  j+. y+  y+. y+, 0a
  *X  ??  S   T   U   V   W   X   Y   Z   1a  2a  ??  3a  4a  5a
  0   1   2   3   4   5   6   7   8   9   ??  6a  7a  8a  9a  DT

  &charset IBM423
  &rem source: IBM NLS RM Vol2 SE09-8002-01, March 1990
  &alias cp423
  &alias ebcdic-cp-gr
  &code 0
  NU SH SX EX ET EQ AK BL BS HT LF VT FF CR SO SI
  DL D1 D2 D3 D4 NK SY EB CN EM SB EC FS GS RS US
  ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ??
  ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ??
  SP A* B* G* D* E* Z* Y* H* I* <( .  <  (  +  !
  &  K* L* M* N* C* O* P* R* S* )> DO *  )  ;  '>
```

```
  -  /  T* U* F* X* Q* W* ?? ?? ?? ,  %  _  >  ?
  ?? A% E% Y% ?? I% O% U% W% '! :  Pd SE '  =  "
  A: a  b  c  d  e  f  g  h  i  a* b* g* d* e* z*
  O: j  k  l  m  n  o  p  q  r  y* h* i* k* l* m*
  U: ': s  t  u  v  w  x  y  z  n* c* o* p* r* *s
  ?? a% e% y% j* i% o% u% v* w% s* t* u* f* x* q*
  %' y= z= s% je sc c% =' JU A= B= C= D= E= F= G=
  ', A  B  C  D  E  F  G  H  I  ?? w* A> a! a: e>
  '' J  K  L  M  N  O  P  Q  R  +- e' e! e: i> i:
  DG ?? S  T  U  V  W  X  Y  Z  12 o: o> u> u! u:
  0  1  2  3  4  5  6  7  8  9  y: c, C, ?? ?? DT

  &charset IBM424
  &rem source: IBM NLS RM Vol2 SE09-8002-01, March 1990
  &alias cp424
  &alias ebcdic-cp-he
  &code 0
  NU SH SX EX ET EQ AK BL BS HT LF VT FF CR SO SI
  DL D1 D2 D3 D4 NK SY EB CN EM SB EC FS GS RS US
  ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ??
  ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ??
  SP A+ B+ G+ D+ H+ W+ Z+ X+ Tj Ct .  <  (  +  !!
  &  J+ K% K+ L+ M% M+ N% N+ S+ !  DO *  )  ;  NO
  -  /  E+ P% P+ Zj ZJ Q+ R+ Sh BB ,  %  _  >  ?
  ?? T+ ?? ?? NS ?? ?? ?? == '! :  Nb At '  =  "
  ?? a  b  c  d  e  f  g  h  i  << >> ?? ?? ?? ??
  DG j  k  l  m  n  o  p  q  r  ?? ?? ?? ', ?? Cu
  My '? s  t  u  v  w  x  y  z  ?? ?? ?? ?? ?? Rg
  '> Pd Ye .M Co SE PI 14 12 34 <( )> '- ': '' *X
  (! A  B  C  D  E  F  G  H  I  -- ?? ?? ?? ?? ??
  !) J  K  L  M  N  O  P  Q  R  1S ?? ?? ?? ?? ??
  // -: S  T  U  V  W  X  Y  Z  2S ?? ?? ?? ?? ??
  0  1  2  3  4  5  6  7  8  9  3S ?? ?? ?? ?? DT

  &charset IBM437
  &rem source: IBM NLS RM Vol2 SE09-8002-01, March 1990
  &alias cp437
  &alias 437
  &code 0
  NU SH SX EX ET EQ AK BL BS HT LF VT FF CR SO SI
  DL D1 D2 D3 D4 NK SY EB CN EM SB EC FS GS RS US
  SP ! " Nb DO % & ' ( ) * + , - . / 0 1 2 3 4 5 6 7 8 9 : ; < = > ?
  At A B C D E F G H I J K L M N O P Q R S T U V W X Y Z <( // )> '> _
  '! a b c d e f g h i j k l m n o p q r s t u v w x y z (! !! !) '? DT
  C, u: e' a> a: a! aa c, e> e: e! i: i> i! A: AA
  E' ae AE o> o: o! u> u! y: O: U: Ct Pd Ye Pt Fl
  a' i' o' u' n? N? -a -o ?I NI NO 12 14 !I << >>
  .S :S ?S vv vl vL Vl Dl dL VL VV LD UL Ul uL dl
  ur uh dh vr hh vh vR Vr UR DR UH DH VR HH VH uH
  Uh dH Dh Ur uR dR Dr Vh vH ul dr FB LB lB RB TB
  a* b* G* p* S* s* m* t* F* H* W* d* 00 /0 e* (U
  =3 +- >= =< Iu Il -: ?2 Ob .M Sb RT nS 2S fS NS
```

```
  &charset IBM500
  &rem source: IBM NLS RM Vol2 SE09-8002-01, March 1990
  &alias CP500
  &alias ebcdic-cp-be
  &alias ebcdic-cp-ch
  &code 0
  NU SH SX EX ET EQ AK BL BS HT LF VT FF CR SO SI
  DL D1 D2 D3 D4 NK SY EB CN EM SB EC FS GS RS US
  ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ??
  ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ??
  SP NS a> a: a! a' a? aa c, n? <( .  <  (  +  !
  &  e' e> e: e! i' i> i: i! ss )> DO *  )  ;  '>
  -  /  A> A: A! A' A? AA C, N? BB ,  %  _  >  ?
  o/ E' E> E: E! I' I> I: I! '! :  Nb At '  =  "
  O/ a  b  c  d  e  f  g  h  i  << >> d- y' th +-
  DG j  k  l  m  n  o  p  q  r  -a -o ae ', AE Cu
  My '? s  t  u  v  w  x  y  z  !I ?I D- Y' TH Rg
  Ct Pd Ye .M Co SE PI 14 12 34 NO !! '- ': '' *X
  (! A  B  C  D  E  F  G  H  I  -- o> o: o! o' o?
  !) J  K  L  M  N  O  P  Q  R  1S u> u: u! u' y:
  // -: S  T  U  V  W  X  Y  Z  2S O> O: O! O' O?
  0  1  2  3  4  5  6  7  8  9  3S U> U: U! U' DT

  &charset IBM850
  &rem source: IBM NLS RM Vol2 SE09-8002-01, March 1990
  &alias cp850
  &alias 850
  &code 0
  NU SH SX EX ET EQ AK BL BS HT LF VT FF CR SO SI
  DL D1 D2 D3 D4 NK SY EB CN EM SB EC FS GS RS US
  SP ! " Nb DO % & ' ( ) * + , - . / 0 1 2 3 4 5 6 7 8 9 : ; < = > ?
  At A B C D E F G H I J K L M N O P Q R S T U V W X Y Z <( // )> '> _
  '! a b c d e f g h i j k l m n o p q r s t u v w x y z (! !! !) '? DT
  C, u: e' a> a: a! aa c, e> e: e! i: i> i! A: AA
  E' ae AE o> o: o! u> u! y: O: U: o/ Pd O/ *X Fl
  a' i' o' u' n? N? -a -o ?I Rg NO 12 14 !I << >>
  .S :S ?S vv vl A' A> A! Co VL VV LD UL Ct Ye dl
  ur uh dh vr hh vh a? A? UR DR UH DH VR HH VH Cu
  d- D- E> E: E! i. I' I> I: ul dr FB LB BB I! TB
  O' ss O> O! o? O? m* TH th U' U> U! y' Y' -M ''
  -- +- == 34 PI SE -: '; DG ': '. 1S 3S 2S fS NS

  &charset IBM851
  &rem source: IBM NLS RM Vol2 SE09-8002-01, March 1990
  &alias cp851
  &alias 851
  &code 0
  NU SH SX EX ET EQ AK BL BS HT LF VT FF CR SO SI
  DL D1 D2 D3 D4 NK SY EB CN EM SB EC FS GS RS US
  SP ! " Nb DO % & ' ( ) * + , - . / 0 1 2 3 4 5 6 7 8 9 : ; < = > ?
  At A B C D E F G H I J K L M N O P Q R S T U V W X Y Z <( // )> '> _
  '! a b c d e f g h i j k l m n o p q r s t u v w x y z (! !! !) '? DT
  C, u: e' a> a: a! A% c, e> e: e! i: i> E% A: Y%
```

```
  I% ?? O% o> o: U% u> u! W% O: U: a% Pd e% y% i%
  j* i3 o% u% A* B* G* D* E* Z* Y* 12 H* I* << >>
  .S :S ?S vv vl K* L* N* M* VL VV LD UL C* O* dl
  ur uh dh vr hh vh P* R* UR DR UH DH VR HH VH S*
  T* U* F* X* Q* W* a* b* g* ul dr FB LB d* e* TB
  z* y* h* i* k* l* m* n* c* o* p* r* s* *s t* ’’
  -- +- u* f* x* SE q* ’; DG ’: w* v* u3 w% fS NS

  &charset IBM852
  &rem source: IBM NLS RM Vol2 SE09-8002-01, March 1990
  &alias cp852
  &alias 852
  &code 0
  NU SH SX EX ET EQ AK BL BS HT LF VT FF CR SO SI
  DL D1 D2 D3 D4 NK SY EB CN EM SB EC FS GS RS US
  SP ! " Nb DO % & ’ ( ) * + , - . / 0 1 2 3 4 5 6 7 8 9 : ; < = > ?
  At A B C D E F G H I J K L M N O P Q R S T U V W X Y Z <( // )> ’> _
  ’! a b c d e f g h i j k l m n o p q r s t u v w x y z (! !! !) ’? DT
  C, u: e’ a> a: u0 c’ c, l/ e: O" o" i> Z’ A: C’
  E’ L’ l’ o> o: L< l< S’ s’ O: U: T< t< L/ *X c<
  a’ i’ o’ u’ A; a; Z< z< E; e; ?? z’ C< s, << >>
  .S :S ?S vv vl A’ A> E< S, VL VV LD UL Z. z. dl
  ur uh dh vr hh vh A( a( UR DR UH DH VR HH VH Cu
  d/ D/ D< E: d< N< I’ U> e< ul dr FB LB T, U0 TB
  O’ ss O> N’ n’ n< S< s< R’ U’ r’ U" y’ Y’ t, ’’
  -- ’" ’, ’< ’( SE -: ’; DG ’: ’. u" R< r< fS NS

  &charset IBM855
  &rem source: IBM NLS RM Vol2 SE09-8002-01, March 1990
  &alias cp855
  &alias 855
  &code 0
  NU SH SX EX ET EQ AK BL BS HT LF VT FF CR SO SI
  DL D1 D2 D3 D4 NK SY EB CN EM SB EC FS GS RS US
  SP ! " Nb DO % & ’ ( ) * + , - . / 0 1 2 3 4 5 6 7 8 9 : ; < = > ?
  At A B C D E F G H I J K L M N O P Q R S T U V W X Y Z <( // )> ’> _
  ’! a b c d e f g h i j k l m n o p q r s t u v w x y z (! !! !) ’? DT
  d% D% g% G% io IO ie IE ds DS ii II yi YI j% J%
  lj LJ nj NJ ts TS kj KJ v% V% dz DZ ju JU =’ ="
  a= A= b= B= c= C= d= D= e= E= f= F= g= G= << >>
  .S :S ?S vv vl h= H= i= I= VL VV LD UL j= J= dl
  ur uh dh vr hh vh k= K= UR DR UH DH VR HH VH Cu
  l= L= m= M= n= N= o= O= p= ul dr FB LB P= ja TB
  JA r= R= s= S= t= T= u= U= z% Z% v= V= %’ %" ’’
  -- y= Y= z= Z= s% S% je JE sc Sc c% C% ?? fS NS

  &charset IBM857
  &rem source: IBM NLS RM Vol2 SE09-8002-01, March 1990
  &alias cp857
  &alias 857
  &code 0
  NU SH SX EX ET EQ AK BL BS HT LF VT FF CR SO SI
  DL D1 D2 D3 D4 NK SY EB CN EM SB EC FS GS RS US
```

```
  SP ! " Nb DO % & ' ( ) * + , - . / 0 1 2 3 4 5 6 7 8 9 : ; < = > ?
  At A B C D E F G H I J K L M N O P Q R S T U V W X Y Z <( // )> '> _
  '! a b c d e f g h i j k l m n o p q r s t u v w x y z (! !! !) '? DT
  C, u: e' a> a: a! aa c, e> e: e! i: i> i. A: AA
  E' ae AE o> o: o! u> u! I. O: U: o/ Pd O/ S, s,
  a' i' o' u' n? N? G( g( ?I Rg NO 12 14 !I << >>
  .S :S ?S vv vl A' A> A! Co VL VV LD UL Ct Ye dl
  ur uh dh vr hh vh a? A? UR DR UH DH VR HH VH Cu
  -o -a E> E: E! ?? I' I> I: ul dr FB LB BB I! TB
  O' ss O> O! o? O? m* ?? *X U' U> U! i! y: -M ''
  -- +- ?? 34 PI SE -: '; DG ': '. 1S 3S 2S fS NS

  &charset IBM860
  &rem source: IBM NLS RM Vol2 SE09-8002-01, March 1990
  &alias cp860
  &alias 860
  &code 0
  NU SH SX EX ET EQ AK BL BS HT LF VT FF CR SO SI
  DL D1 D2 D3 D4 NK SY EB CN EM SB EC FS GS RS US
  SP ! " Nb DO % & ' ( ) * + , - . / 0 1 2 3 4 5 6 7 8 9 : ; < = > ?
  At A B C D E F G H I J K L M N O P Q R S T U V W X Y Z <( // )> '> _
  '! a b c d e f g h i j k l m n o p q r s t u v w x y z (! !! !) '? DT
  C, u: e' a> a? a! A' c, e> E> e! I> O> i! A? A>
  E' A! E! o> o? o! U' u! I! O? U: Ct Pd U! Pt O!
  a' i' o' u' n? N? -a -o ?I O' NO 12 14 !I << >>
  .S :S ?S vv vl vL Vl Dl dL VL VV LD UL Ul uL dl
  ur uh dh vr hh vh vR Vr UR DR UH DH VR HH VH uH
  Uh dH Dh Ur uR dR Dr Vh vH ul dr FB LB lB RB TB
  a* b* G* p* S* s* m* t* F* H* W* d* 00 /0 e* (U
  =3 +- >= =< Iu Il -: ?2 Ob .M Sb RT nS 2S fS NS

  &charset IBM861
  &rem source: IBM NLS RM Vol2 SE09-8002-01, March 1990
  &alias cp861
  &alias 861
  &alias cp-is
  &code 0
  NU SH SX EX ET EQ AK BL BS HT LF VT FF CR SO SI
  DL D1 D2 D3 D4 NK SY EB CN EM SB EC FS GS RS US
  SP ! " Nb DO % & ' ( ) * + , - . / 0 1 2 3 4 5 6 7 8 9 : ; < = > ?
  At A B C D E F G H I J K L M N O P Q R S T U V W X Y Z <( // )> '> _
  '! a b c d e f g h i j k l m n o p q r s t u v w x y z (! !! !) '? DT
  C, u: e' a> a: a! aa c, e> e: e! D- d- TH A: AA
  E' ae AE o> o: th u> Y' y' O: U: o/ Pd O/ Pt O!
  a' i' o' u' A' I' O' U' ?I ?? NO 12 14 !I << >>
  .S :S ?S vv vl vL Vl Dl dL VL VV LD UL Ul uL dl
  ur uh dh vr hh vh vR Vr UR DR UH DH VR HH VH uH
  Uh dH Dh Ur uR dR Dr Vh vH ul dr FB LB lB RB TB
  a* b* G* p* S* s* m* t* F* H* W* d* 00 /0 e* (U
  =3 +- >= =< Iu Il -: ?2 Ob .M Sb RT nS 2S fS NS

  &charset IBM862
  &rem source: IBM NLS RM Vol2 SE09-8002-01, March 1990
```

```
  &alias cp862
  &alias 862
  &code 0
  NU SH SX EX ET EQ AK BL BS HT LF VT FF CR SO SI
  DL D1 D2 D3 D4 NK SY EB CN EM SB EC FS GS RS US
  SP ! " Nb DO % & ' ( ) * + , - . / 0 1 2 3 4 5 6 7 8 9 : ; < = > ?
  At A B C D E F G H I J K L M N O P Q R S T U V W X Y Z <( // )> '> _
  '! a b c d e f g h i j k l m n o p q r s t u v w x y z (! !! !) '? DT
  A+ B+ G+ D+ H+ W+ Z+ X+ Tj J+ K% K+ L+ M% M+ N%
  N+ S+ E+ P% P+ Zj ZJ Q+ R+ Sh T+ Ct Pd U! Pt O!
  a' i' o' u' n? N? -a -o ?I ?? NO 12 14 !I << >>
  .S :S ?S vv vl vL Vl Dl dL VL VV LD UL Ul uL dl
  ur uh dh vr hh vh vR Vr UR DR UH DH VR HH VH uH
  Uh dH Dh Ur uR dR Dr Vh vH ul dr FB LB lB RB TB
  a* b* G* p* S* s* m* t* F* H* W* d* 00 /0 e* (U
  =3 +- >= =< Iu Il -: ?2 Ob .M Sb RT nS 2S fS NS

  &charset IBM863
  &rem source: IBM Keyboard layouts and code pages, PN 07G4586 June 1991
  &alias cp863
  &alias 863
  &code 0
  NU SH SX EX ET EQ AK BL BS HT LF VT FF CR SO SI
  DL D1 D2 D3 D4 NK SY EB CN EM SB EC FS GS RS US
  SP ! " Nb DO % & ' ( ) * + , - . / 0 1 2 3 4 5 6 7 8 9 : ; < = > ?
  At A B C D E F G H I J K L M N O P Q R S T U V W X Y Z <( // )> '> _
  '! a b c d e f g h i j k l m n o p q r s t u v w x y z (! !! !) '? DT
  C, u: e' a> A> a! PI c, e> e: e! i: i> i! A! SE
  E' E! E> o> E: I: u> u! Cu O> U: Ct Pd U! U> Fl
  BB '' o' u' ': ', 3S '- I> NI NO 12 14 34 << >>
  .S :S ?S vv vl vL Vl Dl dL VL VV LD UL Ul uL dl
  ur uh dh vr hh vh vR Vr UR DR UH DH VR HH VH uH
  Uh dH Dh Ur uR dR Dr Vh vH ul dr FB LB lB RB TB
  a* b* G* p* S* s* m* t* F* H* W* d* 00 /0 e* (U
  =3 +- >= =< Iu Il -: ?2 Ob .M Sb RT nS 2S fS NS

  &charset IBM864
  &rem source: IBM Keyboard layouts and code pages, PN 07G4586 June 1991
  &alias cp864
  &code 0
  NU SH SX EX ET EQ AK BL BS HT LF VT FF CR SO SI
  DL D1 D2 D3 D4 NK SY EB CN EM SB EC FS GS RS US
  SP ! " Nb DO % & ' ( ) * + , - . / 0 1 2 3 4 5 6 7 8 9 : ; < = > ?
  At A B C D E F G H I J K L M N O P Q R S T U V W X Y Z <( // )> '> _
  '! a b c d e f g h i j k l m n o p q r s t u v w x y z (! !! !) '? DT
  DG  .M  Ob  RT  :S  hh  vv  vh  vl  dh  vr  uh  dl  dr  ur  ul
  ss  00  o/  +-  12  14  ?2  <<  >>  lH- lH. ??  ??  la- la. a+:
  ??  --  aM. Pd  Cu  aH. ??  ??  a+. b+  t+  tk  ,+  g+  hk  x+
  0a  1a  2a  3a  4a  5a  6a  7a  8a  9a  v+  ;+  s+  sn  c+  ?+
  Ct  H'  aM  aH  wH  e+. yH  a+  b+, tm  t+, tk, g+, hk, x+, d+
  dk  r+  z+  s+, sn, c+, dd, tj  zH  e+, i+, BB  NO  -:  *X  e+
  ++  f+. q+. k+, l+. m+, n+. h+, w+  j+  y+, dd  m+. i+. i+  m+
  3+; 3+  n+  h+  h+; j+. y+. f+  q+  lM- lM. l+  k+  y+  fS  NS
```

```
&charset IBM865
&rem source: IBM DOS 3.3 Ref (Abridged), 94X9575 (Feb 1987)
&alias cp865
&alias 865
&code 0
NU SH SX EX ET EQ AK BL BS HT LF VT FF CR SO SI
DL D1 D2 D3 D4 NK SY EB CN EM SB EC FS GS RS US
SP ! " Nb DO % & ' ( ) * + , - . / 0 1 2 3 4 5 6 7 8 9 : ; < = > ?
At A B C D E F G H I J K L M N O P Q R S T U V W X Y Z <( // )> '> _
'! a b c d e f g h i j k l m n o p q r s t u v w x y z (! !! !) '? DT
C, u: e' a> a: a! aa c, e> e: e! i: i> i! A: AA
E' ae AE o> o: o! u> u! y: O: U: o/ Pd O/ Pt Fl
a' i' o' u' n? N? -a -o ?I NI NO 12 14 !I << >>
.S :S ?S vv vl vL Vl Dl dL VL VV LD UL Ul uL dl
ur uh dh vr hh vh vR Vr UR DR UH DH VR HH VH uH
Uh dH Dh Ur uR dR Dr Vh vH ul dr FB LB lB RB TB
a* b* G* p* S* s* m* t* F* H* W* d* 00 /0 e* (U
=3 +- >= =< Iu Il -: ?2 Ob .M Sb RT nS 2S fS NS

&charset IBM868
&rem source: IBM NLS RM Vol2 SE09-8002-01, March 1990
&alias CP868
&alias cp-ar
&code 0
NU SH SX EX ET EQ AK BL BS HT LF VT FF CR SO SI
DL D1 D2 D3 D4 NK SY EB CN EM SB EC FS GS RS US
SP ! " Nb DO % & ' ( ) * + , - . / 0 1 2 3 4 5 6 7 8 9 : ; < = > ?
At A B C D E F G H I J K L M N O P Q R S T U V W X Y Z <( // )> '> _
'! a b c d e f g h i j k l m n o p q r s t u v w x y z (! !! !) '? DT
0a  1a  2a  3a  4a  5a  6a  7a  8a  9a  ,+  ;+  ?+  aM  a+  a+.
a+: b+  b+, p+  ??  tm  t+  t+, ??  ??  tk  tk, g+  g+, ??  ??
hk  hk, x+  x+, d+  ??  dk  r+  ??  z+  ??  s+  s+, sn  <<  >>
sn, c+  .S  :S  ?S  vv  vl  c+, dd  dd, tj  VL  VV  LD  UL  zH
e+  dl  ur  uh  dh  vr  hh  vh  e+. e+, UR  DR  UH  DH  VR  HH
VH  e+; i+  i+. i+, i+; f+  f+, q+  q+, k+. ul  dr  FB  TB  k+,
??  LB  ??  l+  l+. l+; m+  m+, ??  n+  n+, ??  w+  ??  ??  ??
??  H'  --  ??  ??  ??  ??  ??  ??  ??  ??  3+  3+; ??  fS  NS

&charset IBM869
&rem source: IBM Keyboard layouts and code pages, PN 07G4586 June 1991
&alias cp869
&alias 869
&alias cp-gr
&code 0
NU SH SX EX ET EQ AK BL BS HT LF VT FF CR SO SI
DL D1 D2 D3 D4 NK SY EB CN EM SB EC FS GS RS US
SP ! " Nb DO % & ' ( ) * + , - . / 0 1 2 3 4 5 6 7 8 9 : ; < = > ?
At A B C D E F G H I J K L M N O P Q R S T U V W X Y Z <( // )> '> _
'! a b c d e f g h i j k l m n o p q r s t u v w x y z (! !! !) '? DT
?? ?? ?? ?? ?? ?? A% ?? .M NO BB 9' '9 E% -M Y%
I% J* O% ?? ?? U% V* Co W% 2S 3S a% Pd e% y% i%
j* i3 o% u% A* B* G* D* E* Z* Y* 12 H* I* << >>
```

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  .S :S ?S vv vl K* L* M* N* VL VV LD UL C* O* dl
  ur uh dh vr hh vh P* R* UR DR UH DH VR HH VH S*
  T* U* F* X* Q* W* a* b* g* ul dr FB LB d* e* TB
  z* y* h* i* k* l* m* n* c* o* p* r* s* *s t* ''
  -- +- u* f* x* SE q* '% DG ': w* v* u3 w% fS NS

  &charset IBM870
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  &alias CP870
  &alias ebcdic-cp-roece
  &alias ebcdic-cp-yu
  &code 0
  NU SH SX EX ET EQ AK BL BS HT LF VT FF CR SO SI
  DL D1 D2 D3 D4 NK SY EB CN EM SB EC FS GS RS US
  ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ??
  ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ??
  SP NS ?? a: ?? a' a( c< c, c' <( .  <  (  +  !
  &  e' ?? e: u0 i' ?? l< l' ss )> DO *  )  ;  '>
  -  /  ?? A: '" A' ?? C< C, C' !! ,  %  _  >  ?
  '< E' ?? E: U0 I' ?? L< L' '! :  Nb At '  =  "
  '( a  b  c  d  e  f  g  h  i  s' n< d/ y' r< ??
  DG j  k  l  m  n  o  p  q  r  l/ n' s< ', '; Cu
  a; '? s  t  u  v  w  x  y  z  S' N< D/ Y' R< ??
  .M A; z. ?? Z. SE PI z< z' Z< Z' N' S< ': '' *X
  (! A  B  C  D  E  F  G  H  I  -- o> o: r' o' o"
  !) J  K  L  M  N  O  P  Q  R  E< u" u: t< u' e<
  // -: S  T  U  V  W  X  Y  Z  d< O> O: R' O' O"
  0  1  2  3  4  5  6  7  8  9  D< U" U: T< U' DT

  &charset IBM871
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  DL D1 D2 D3 D4 NK SY EB CN EM SB EC FS GS RS US
  ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ??
  ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ??
  SP NS a> a: a! a' a? aa c, n? th .  <  (  +  !
  &  e' e> e: e! i' i> i: i! ss AE DO *  )  ;  O:
  -  /  A> A: A! A' A? AA C, N? BB ,  %  _  >  ?
  o/ E' E> E: E! I' I> I: I! d- :  Nb D- '  =  "
  O/ a  b  c  d  e  f  g  h  i  << >> '! y' (! +-
  DG j  k  l  m  n  o  p  q  r  -a -o !) ', )> Cu
  My o: s  t  u  v  w  x  y  z  !I ?I At Y' <( Rg
  Ct Pd Ye .M Co SE PI 14 12 34 NO !! '- ': // *X
  TH A  B  C  D  E  F  G  H  I  -- o> '? o! o' o?
  ae J  K  L  M  N  O  P  Q  R  1S u> u: u! u' y:
  '' -: S  T  U  V  W  X  Y  Z  2S O> '> O! O' O?
  0  1  2  3  4  5  6  7  8  9  3S U> U: U! U' DT

  &charset IBM880
  &rem source: IBM NLS RM Vol2 SE09-8002-01, March 1990
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  ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ??
  ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ??
  SP ?? d% g% io ?? ds ii yi j% <( .  <  (  +  !
  &  lj nj ts kj ?? dz =" N0 D% )> DO *  )  ;  '>
  -  /  G% IO ?? DS II YI J% LJ BB ,  %  _  >  ?
  NJ Ts KJ ?? ?? DZ ju a= b= ?? :  Nb At '  =  "
  c= a  b  c  d  e  f  g  h  i  d= e= f= g= h= i=
  j= j  k  l  m  n  o  p  q  r  k= l= m= n= o= p=
  ja ?? s  t  u  v  w  x  y  z  r= s= t= u= z% v=
  %' y= z= s% je sc c% =' JU A= B= C= D= E= F= G=
  ?? A  B  C  D  E  F  G  H  I  H= I= J= K= L= M=
  ?? J  K  L  M  N  O  P  Q  R  N= O= P= JA R= S=
  // Cu S  T  U  V  W  X  Y  Z  T= U= Z% V= %" Y=
  0  1  2  3  4  5  6  7  8  9  Z= S% JE Sc C% DT

  &charset IBM891
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  &code 0
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  DL D1 D2 D3 D4 NK SY EB CN EM SB EC FS GS RS US
  SP ! " Nb DO % & ' ( ) * + , - . / 0 1 2 3 4 5 6 7 8 9 : ; < = > ?
  At A B C D E F G H I J K L M N O P Q R S T U V W X Y Z <( // )> '> _
  '! a b c d e f g h i j k l m n o p q r s t u v w x y z (! !! !) '? DT
  ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ??
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  &charset IBM903
  &rem source: IBM NLS RM Vol2 SE09-8002-01, March 1990
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  DL D1 D2 D3 D4 NK SY EB CN EM SB EC FS GS RS US
  SP ! " Nb DO % & ' ( ) * + , - . / 0 1 2 3 4 5 6 7 8 9 : ; < = > ?
  At A B C D E F G H I J K L M N O P Q R S T U V W X Y Z <( // )> '> _
  '! a b c d e f g h i j k l m n o p q r s t u v w x y z (! !! !) '? DT
  ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ??
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  &charset IBM904
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  At A B C D E F G H I J K L M N O P Q R S T U V W X Y Z <( // )> '> _
  '! a b c d e f g h i j k l m n o p q r s t u v w x y z (! !! !) '? DT
  Ct ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ??
  ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ??
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  &charset IBM905
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  DL D1 D2 D3 D4 NK SY EB CN EM SB EC FS GS RS US
  ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ??
  ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ??
  SP ?? a> a: a! a' ?? c. (! n? C, .  <  (  +  !
  &  e' e> e: e! i' i> i: i! ss G( I. *  )  ;  '>
  -  /  A> A: A! A' ?? C. <( N? s, ,  %  _  >  ?
  ?? E' E> E: E! I' I> I: I! i. :  O: S, '  =  U:
  '( a  b  c  d  e  f  g  h  i  h/ c> s> u( ?? !!
  DG j  k  l  m  n  o  p  q  r  h> g> j> '; ?? Cu
  My o: s  t  u  v  w  x  y  z  H/ C> S> U( ?? At
  .M Pd z. !) Z. SE )> ?? 12 DO H> G> J> ': '' *X
  c, A  B  C  D  E  F  G  H  I  -- o> '? o! o' g.
  g( J  K  L  M  N  O  P  Q  R  '! u> // u! u' ??
  u: -: S  T  U  V  W  X  Y  Z  2S O> Nb O! O' G.
  0  1  2  3  4  5  6  7  8  9  3S U> "  U! U' DT

  &charset IBM918
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  DL D1 D2 D3 D4 NK SY EB CN EM SB EC FS GS RS US
  ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ??
  ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ??
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  SP   NS   ,+   ;+   ?+   aH   a+   a+. ??   b+   <(   .    <    (    +    !
  &    b+,  p+   ??   tm   t+   t+,  ??   ??   tk   )>   DO   *    )    ;    '>
  -    /    tk,  g+   g+,  ??   ??   hk   hk,  x+   '!   ,    %    _    >    ?
  0a   1a   2a   3a   4a   5a   6a   7a   8a   9a   :    Nb   At   '    =    "
  x+,  a    b    c    d    e    f    g    h    i    d+   ??   dk   r+   ??   z+
  ??   j    k    l    m    n    o    p    q    r    s+   s+,  sn   sn,  c+   c+,
  dd   '?   s    t    u    v    w    x    y    z    dd,  tj   zH   e+   e+.  e+,
  e+;  i+   i+.  i+,  i+;  f+   f+,  q+   q+,  k+   k+,  !!   ??   ??   l+   l+.
  (!   A    B    C    D    E    F    G    H    I    --   ??   m+   m+,  ??   n+
  !)   J    K    L    M    N    O    P    Q    R    n+,  ??   w+   ??   ??   ??
  //   ??   S    T    U    V    W    X    Y    Z    H'   ??   ??   ??   ??   ??
  0    1    2    3    4    5    6    7    8    9    ??   ??   ??   3+   3+;  DT

  &charset IBM1026
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  ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ??
  ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ??
  SP NS a> a: a! a' a? aa (! n? C, .  <  (  +  !
  &  e' e> e: e! i' i> i: i! ss G( I. *  )  ;  '>
  -  /  A> A: A! A' A? AA <( N? s, ,  %  _  >  ?
  o/ E' E> E: E! I' I> I: I! i. :  O: S, '  =  U:
  O/ a  b  c  d  e  f  g  h  i  << >> !) '! BB +-
  DG j  k  l  m  n  o  p  q  r  -a -o ae '; AE Cu
  My o: s  t  u  v  w  x  y  z  !I ?I )> DO At Rg
  Ct Pd Ye .M Co SE PI 14 12 34 NO !! -M ': '' *X
  c, A  B  C  D  E  F  G  H  I  -- o> '? o! o' o?
  g( J  K  L  M  N  O  P  Q  R  1S u> // u! u' y:
  u: -: S  T  U  V  W  X  Y  Z  2S O> Nb O! O' O?
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  &charset EBCDIC-AT-DE
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  ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ??
  ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ??
  SP ?? ?? ?? ?? ?? ?? ?? ?? ?? A: .  <  (  +  !
  &  ?? ?? ?? ?? ?? ?? ?? ?? ?? U: DO *  )  ;  '>
  -  /  ?? ?? ?? ?? ?? ?? ?? ?? o: ,  %  _  >  ?
  ?? ?? ?? ?? ?? ?? ?? ?? ?? '! :  Nb SE '  =  "
  ?? a  b  c  d  e  f  g  h  i  ?? ?? ?? ?? ?? ??
  ?? j  k  l  m  n  o  p  q  r  ?? ?? ?? ?? ?? ??
  ?? ss s  t  u  v  w  x  y  z  ?? ?? ?? ?? ?? ??
  ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ??
  a: A  B  C  D  E  F  G  H  I  ?? ?? ?? ?? ?? ??
  u: J  K  L  M  N  O  P  Q  R  ?? ?? ?? ?? ?? ??
  O: ?? S  T  U  V  W  X  Y  Z  ?? ?? ?? ?? ?? ??
  0  1  2  3  4  5  6  7  8  9  ?? ?? ?? ?? ?? DT
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?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ??
?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ??
SP ?? ?? ?? ?? ?? ?? ?? ?? ?? o: .  <  (  +  !!
&  ?? ?? ?? ?? ?? ?? ?? ?? ?? u: U: *  )  ;  NO
-  /  ?? ?? ?? ?? ?? ?? ?? ?? ss ,  %  _  >  ?
?? ?? ?? ?? ?? ?? ?? ?? ?? ?? :  A: O: '  =  a:
?? a  b  c  d  e  f  g  h  i  ?? ?? ?? ?? ?? ??
?? j  k  l  m  n  o  p  q  r  ?? ?? ?? ?? ?? ??
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?? A  B  C  D  E  F  G  H  I  ?? ?? ?? ?? ?? ??
?? J  K  L  M  N  O  P  Q  R  ?? ?? ?? ?? ?? ??
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DL D1 D2 D3 D4 NK SY EB CN EM SB EC FS GS RS US
?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ??
?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ??
SP ?? a> ?? ?? ?? ?? ?? c, ?? a! .  <  (  +  !
&  ?? e> e: ?? ?? i> i: ?? ?? '' DO *  )  ;  '>
-  /  A> ?? A! ?? ?? ?? C, ?? u! ,  %  _  >  ?
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?? a  b  c  d  e  f  g  h  i  ?? ?? ?? ?? ?? ??
?? j  k  l  m  n  o  p  q  r  ?? ?? ?? ?? ?? ??
?? ': s  t  u  v  w  x  y  z  ?? ?? ?? ?? ?? ??
?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ??
e' A  B  C  D  E  F  G  H  I  ?? o> ?? ?? ?? ??
e! J  K  L  M  N  O  P  Q  R  ?? u> u: ?? ?? ??
', ?? S  T  U  V  W  X  Y  Z  ?? O> ?? ?? ?? ??
0  1  2  3  4  5  6  7  8  9  ?? U> U: U! ?? DT

&charset EBCDIC-DK-NO
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?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ??
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SP ?? ?? ?? ?? ?? ?? ?? ?? ?? Nb .  <  (  +  !
&  ?? ?? ?? ?? ?? ?? ?? ?? ?? Cu AA *  )  ;  '>
-  /  ?? ?? ?? ?? ?? ?? ?? ?? o/ ,  %  _  >  ?
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?? a  b  c  d  e  f  g  h  i  ?? ?? ?? ?? ?? ??
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   ?? j  k  l  m  n  o  p  q  r  ?? ?? ?? ?? ?? ??
   ?? u: s  t  u  v  w  x  y  z  ?? ?? ?? ?? ?? ??
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   ae A  B  C  D  E  F  G  H  I  ?? ?? ?? ?? ?? ??
   aa J  K  L  M  N  O  P  Q  R  ?? ?? ?? ?? ?? ??
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   ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ??
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   SP ?? ?? ?? ?? ?? ?? ?? ?? ?? o/ .  <  (  +  !!
   &  ?? ?? ?? ?? ?? ?? ?? ?? ?? aa AA *  )  ;  NO
   -  /  ?? ?? ?? ?? ?? ?? ?? ?? BB ,  %  _  >  ?
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   ?? a  b  c  d  e  f  g  h  i  ?? ?? ?? ?? ?? ??
   ?? j  k  l  m  n  o  p  q  r  ?? ?? ?? ?? ?? ??
   ?? ?? s  t  u  v  w  x  y  z  ?? ?? ?? ?? ?? ??
   ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ??
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   ?? J  K  L  M  N  O  P  Q  R  ?? ?? ?? ?? ?? ??
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   ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ??
   ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ??
   SP ?? ?? ?? ?? ?? ?? ?? ?? ?? SE .  <  (  +  !
   &  ?? ?? ?? ?? ?? ?? ?? ?? ?? Cu AA *  )  ;  '>
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   ?? a  b  c  d  e  f  g  h  i  ?? ?? ?? ?? ?? ??
   ?? j  k  l  m  n  o  p  q  r  ?? ?? ?? ?? ?? ??
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   a: A  B  C  D  E  F  G  H  I  ?? ?? ?? ?? ?? ??
   aa J  K  L  M  N  O  P  Q  R  ?? ?? ?? ?? ?? ??
   E' ?? S  T  U  V  W  X  Y  Z  ?? ?? ?? ?? ?? ??
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   &charset EBCDIC-FI-SE-A
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  SP ?? ?? ?? ?? ?? ?? ?? ?? ?? o: .  <  (  +  !!
  &  ?? ?? ?? ?? ?? ?? ?? ?? ?? aa AA *  )  ;  NO
  -  /  ?? ?? ?? ?? ?? ?? ?? ?? BB ,  %  _  >  ?
  ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? :  A: O: '  =  a:
  ?? a  b  c  d  e  f  g  h  i  ?? ?? ?? ?? ?? ??
  ?? j  k  l  m  n  o  p  q  r  ?? ?? ?? ?? ?? ??
  ?? ?? s  t  u  v  w  x  y  z  ?? ?? ?? ?? ?? ??
  ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ??
  ?? A  B  C  D  E  F  G  H  I  ?? ?? ?? ?? ?? ??
  ?? J  K  L  M  N  O  P  Q  R  ?? ?? ?? ?? ?? ??
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  ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ??
  SP ?? ?? ?? ?? ?? ?? ?? ?? ?? DG .  <  (  +  !
  &  ?? ?? ?? ?? ?? ?? ?? ?? ?? SE DO *  )  ;  '>
  -  /  ?? ?? ?? ?? ?? ?? ?? ?? u! ,  %  _  >  ?
  ?? ?? ?? ?? ?? ?? ?? ?? ?? '! :  Pd a! '  =  "
  ?? a  b  c  d  e  f  g  h  i  ?? ?? ?? ?? ?? ??
  ?? j  k  l  m  n  o  p  q  r  ?? ?? ?? ?? ?? ??
  ?? ': s  t  u  v  w  x  y  z  ?? ?? ?? ?? ?? ??
  ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ??
  e' A  B  C  D  E  F  G  H  I  ?? ?? ?? ?? ?? ??
  e! J  K  L  M  N  O  P  Q  R  ?? ?? ?? ?? ?? ??
  c, ?? S  T  U  V  W  X  Y  Z  ?? ?? ?? ?? ?? ??
  0  1  2  3  4  5  6  7  8  9  ?? ?? ?? ?? ?? DT

  &charset EBCDIC-IT
  &rem source: IBM 3270 Char Set Ref Ch 10, GA27-2837-9, April 1987
  &code 0
  NU SH SX EX ET EQ AK BL BS HT LF VT FF CR SO SI
  DL D1 D2 D3 D4 NK SY EB CN EM SB EC FS GS RS US
  ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ??
  ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ??
  SP ?? ?? ?? ?? ?? ?? ?? ?? ?? DG .  <  (  +  !
  &  ?? ?? ?? ?? ?? ?? ?? ?? ?? e' DO *  )  ;  '>
  -  /  ?? ?? ?? ?? ?? ?? ?? ?? o! ,  %  _  >  ?
  ?? ?? ?? ?? ?? ?? ?? ?? ?? u! :  Pd SE '  =  "
  ?? a  b  c  d  e  f  g  h  i  ?? ?? ?? ?? ?? ??
  ?? j  k  l  m  n  o  p  q  r  ?? ?? ?? ?? ?? ??
  ?? i! s  t  u  v  w  x  y  z  ?? ?? ?? ?? ?? ??
  ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ??
  a! A  B  C  D  E  F  G  H  I  ?? ?? ?? ?? ?? ??
  e! J  K  L  M  N  O  P  Q  R  ?? ?? ?? ?? ?? ??
  c, ?? S  T  U  V  W  X  Y  Z  ?? ?? ?? ?? ?? ??
```

```
   0  1  2  3  4  5  6  7  8  9  ?? ?? ?? ?? ?? DT

   &charset EBCDIC-PT
   &rem source: IBM 3270 Char Set Ref Ch 10, GA27-2837-9, April 1987
   &code 0
   NU SH SX EX ET EQ AK BL BS HT LF VT FF CR SO SI
   DL D1 D2 D3 D4 NK SY EB CN EM SB EC FS GS RS US
   ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ??
   ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ??
   SP ?? ?? ?? ?? ?? ?? ?? ?? ?? <( .  <  (  +  !
   &  ?? ?? ?? ?? ?? ?? ?? ?? ?? )> DO *  )  ;  '>
   -  /  ?? ?? ?? ?? ?? ?? ?? ?? o? ,  %  _  >  ?
   ?? ?? ?? ?? ?? ?? ?? ?? ?? '! :  A? O? '  =  "
   ?? a  b  c  d  e  f  g  h  i  ?? ?? ?? ?? ?? ??
   ?? j  k  l  m  n  o  p  q  r  ?? ?? ?? ?? ?? ??
   ?? c, s  t  u  v  w  x  y  z  ?? ?? ?? ?? ?? ??
   ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ??
   a? A  B  C  D  E  F  G  H  I  ?? ?? ?? ?? ?? ??
   '' J  K  L  M  N  O  P  Q  R  ?? ?? ?? ?? ?? ??
   C, ?? S  T  U  V  W  X  Y  Z  ?? ?? ?? ?? ?? ??
   0  1  2  3  4  5  6  7  8  9  ?? ?? ?? ?? ?? DT

   &charset EBCDIC-ES
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   &code 0
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   DL D1 D2 D3 D4 NK SY EB CN EM SB EC FS GS RS US
   ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ??
   ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ??
   SP ?? ?? ?? ?? ?? ?? ?? ?? ?? Ct .  <  (  +  !!
   &  ?? ?? ?? ?? ?? ?? ?? ?? ?? !  Pt *  )  ;  NO
   -  /  ?? ?? ?? ?? ?? ?? ?? ?? n? ,  %  _  >  ?
   ?? ?? ?? ?? ?? ?? ?? ?? ?? '! :  N? At '  =  "
   ?? a  b  c  d  e  f  g  h  i  ?? ?? ?? ?? ?? ??
   ?? j  k  l  m  n  o  p  q  r  ?? ?? ?? ?? ?? ??
   ?? ': s  t  u  v  w  x  y  z  ?? ?? ?? ?? ?? ??
   ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ??
   (! A  B  C  D  E  F  G  H  I  ?? ?? ?? ?? ?? ??
   !) J  K  L  M  N  O  P  Q  R  ?? ?? ?? ?? ?? ??
   // ?? S  T  U  V  W  X  Y  Z  ?? ?? ?? ?? ?? ??
   0  1  2  3  4  5  6  7  8  9  ?? ?? ?? ?? ?? DT

   &charset EBCDIC-ES-A
   &rem source: IBM 3270 Char Set Ref Ch 10, GA27-2837-9, April 1987
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   DL D1 D2 D3 D4 NK SY EB CN EM SB EC FS GS RS US
   ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ??
   ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ??
   SP ?? ?? ?? ?? ?? ?? ?? ?? ?? Ct .  <  (  +  !!
   &  ?? ?? ?? ?? ?? ?? ?? ?? ?? !  Pt *  )  ;  NO
   -  /  ?? ?? ?? ?? ?? ?? ?? ?? BB ,  %  _  >  ?
   ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? :  N? At '  =  n?
```

```
  ?? a  b  c  d  e  f  g  h  i  ?? ?? ?? ?? ?? ??
  ?? j  k  l  m  n  o  p  q  r  ?? ?? ?? ?? ?? ??
  ?? ?? s  t  u  v  w  x  y  z  ?? ?? ?? ?? ?? ??
  ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ??
  ?? A  B  C  D  E  F  G  H  I  ?? ?? ?? ?? ?? ??
  ?? J  K  L  M  N  O  P  Q  R  ?? ?? ?? ?? ?? ??
  ?? ?? S  T  U  V  W  X  Y  Z  ?? ?? ?? ?? ?? ??
  0  1  2  3  4  5  6  7  8  9  ?? ?? ?? ?? ?? DT

  &charset EBCDIC-ES-S
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  &code 0
  NU SH SX EX ET EQ AK BL BS HT LF VT FF CR SO SI
  DL D1 D2 D3 D4 NK SY EB CN EM SB EC FS GS RS US
  ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ??
  ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ??
  SP ?? ?? ?? ?? ?? ?? ?? ?? ?? Ct .  <  (  +  !!
  &  ?? ?? ?? ?? ?? ?? ?? ?? ?? !  DO *  )  ;  NO
  -  /  ?? ?? ?? ?? ?? ?? ?? ?? n? ,  %  _  >  ?
  ?? ?? ?? ?? ?? ?? ?? ?? ?? '! :  N? At '  =  "
  ?? a  b  c  d  e  f  g  h  i  ?? ?? ?? ?? ?? ??
  ?? j  k  l  m  n  o  p  q  r  ?? ?? ?? ?? ?? ??
  ?? ': s  t  u  v  w  x  y  z  ?? ?? ?? ?? ?? ??
  ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ??
  (! A  B  C  D  E  F  G  H  I  ?? ?? ?? ?? ?? ??
  !) J  K  L  M  N  O  P  Q  R  ?? ?? ?? ?? ?? ??
  // ?? S  T  U  V  W  X  Y  Z  ?? ?? ?? ?? ?? ??
  0  1  2  3  4  5  6  7  8  9  ?? ?? ?? ?? ?? DT

  &charset EBCDIC-UK
  &rem source: IBM 3270 Char Set Ref Ch 10, GA27-2837-9, April 1987
  &code 0
  NU SH SX EX ET EQ AK BL BS HT LF VT FF CR SO SI
  DL D1 D2 D3 D4 NK SY EB CN EM SB EC FS GS RS US
  ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ??
  ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ??
  SP ?? ?? ?? ?? ?? ?? ?? ?? ?? DO .  <  (  +  !!
  &  ?? ?? ?? ?? ?? ?? ?? ?? ?? !  Pd *  )  ;  NO
  -  /  ?? ?? ?? ?? ?? ?? ?? ?? BB ,  %  _  >  ?
  ?? ?? ?? ?? ?? ?? ?? ?? ?? '! :  Nb At '  =  "
  ?? a  b  c  d  e  f  g  h  i  ?? ?? ?? ?? ?? ??
  ?? j  k  l  m  n  o  p  q  r  ?? ?? ?? ?? ?? ??
  ?? '- s  t  u  v  w  x  y  z  ?? ?? ?? ?? ?? ??
  ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ??
  (! A  B  C  D  E  F  G  H  I  ?? ?? ?? ?? ?? ??
  !) J  K  L  M  N  O  P  Q  R  ?? ?? ?? ?? ?? ??
  // ?? S  T  U  V  W  X  Y  Z  ?? ?? ?? ?? ?? ??
  0  1  2  3  4  5  6  7  8  9  ?? ?? ?? ?? ?? DT

  &charset EBCDIC-US
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  &code 0
  NU SH SX EX ET EQ AK BL BS HT LF VT FF CR SO SI
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DL	D1	D2	D3	D4	NK	SY	EB	CN	EM	SB	EC	FS	GS	RS	US
??	??	??	??	??	??	??	??	??	??	??	??	??	??	??	??
??	??	??	??	??	??	??	??	??	??	??	??	??	??	??	??
SP	??	??	??	??	??	??	??	??	??	Ct	.	<	(	+	!!
&	??	??	??	??	??	??	??	??	??	!	DO	*	)	;	NO
-	/	??	??	??	??	??	??	??	??	BB	,	%	_	>	?
??	??	??	??	??	??	??	??	??	’!	:	Nb	At	’	=	"
??	a	b	c	d	e	f	g	h	i	??	??	??	??	??	??
??	j	k	l	m	n	o	p	q	r	??	??	??	??	??	??
??	’?	s	t	u	v	w	x	y	z	??	??	??	??	??	??
??	??	??	??	??	??	??	??	??	??	??	??	??	??	??	??
(!	A	B	C	D	E	F	G	H	I	??	??	??	??	??	??
!)	J	K	L	M	N	O	P	Q	R	??	??	??	??	??	??
//	??	S	T	U	V	W	X	Y	Z	??	??	??	??	??	??
0	1	2	3	4	5	6	7	8	9	??	??	??	??	??	DT

ACKNOWLEDGEMENTS

This memo has been produced with a grant from Nordisk Industrifond project number 91030. I thank all of the people in the IETF 822ext WG for their constructive discussion and remarks on this memo. People from many other circles have also commented on the text and the tables. The following is a list of persons that I remember bringing forward suggestions that made me change the specifications - my aging memory may have forgot even significant contributions, and I apologize for that.

Alain LaBonte’ Alina Da Cruz
Anders Samuelsson Bob Smart
Cuong Bui Dan Oscarsson
David Crocker David Joslin
Dick Weaver Dmitry V. Volodin
Erik van der Poel Geir Petersen
Greg Vaudreuil Harald Tveit Alvestrand
Hugh Tucker Isai Scheinberg
James Do Jan-Michael Rynning
Johan van Wingen John C. Klensin
John F. Chandler Johnny Erikson
Justin Bur Keith Moore
Kevin Donnelly Kim F. Storm
Marius Olofson Masahiro Sekiguchi
Maurizio Sichera Michael Patton
Nandor Horvath Nathaniel Borenstein
Ned Freed Neil Katin
Olle Jaernefors Patrick Faeltstroem
Paul Pomes Peter Svanberg
Philippe-Andre’ Prindeville Randall Atkinson
Steve Hardcastle-Kille

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